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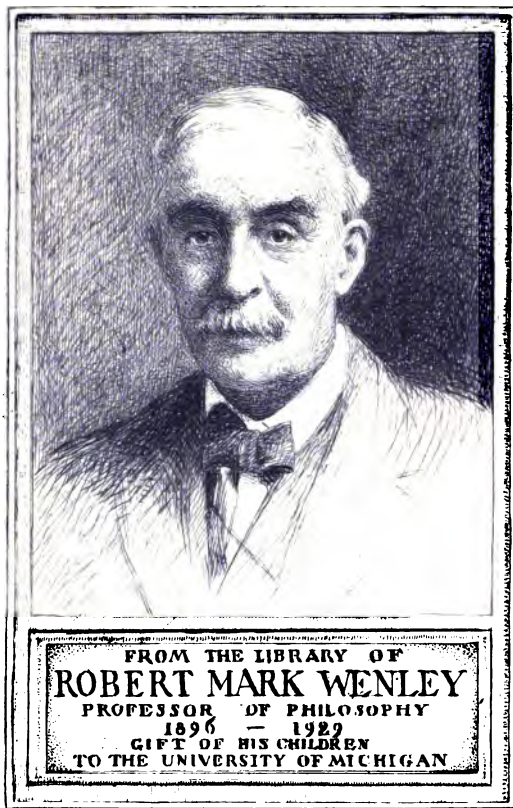
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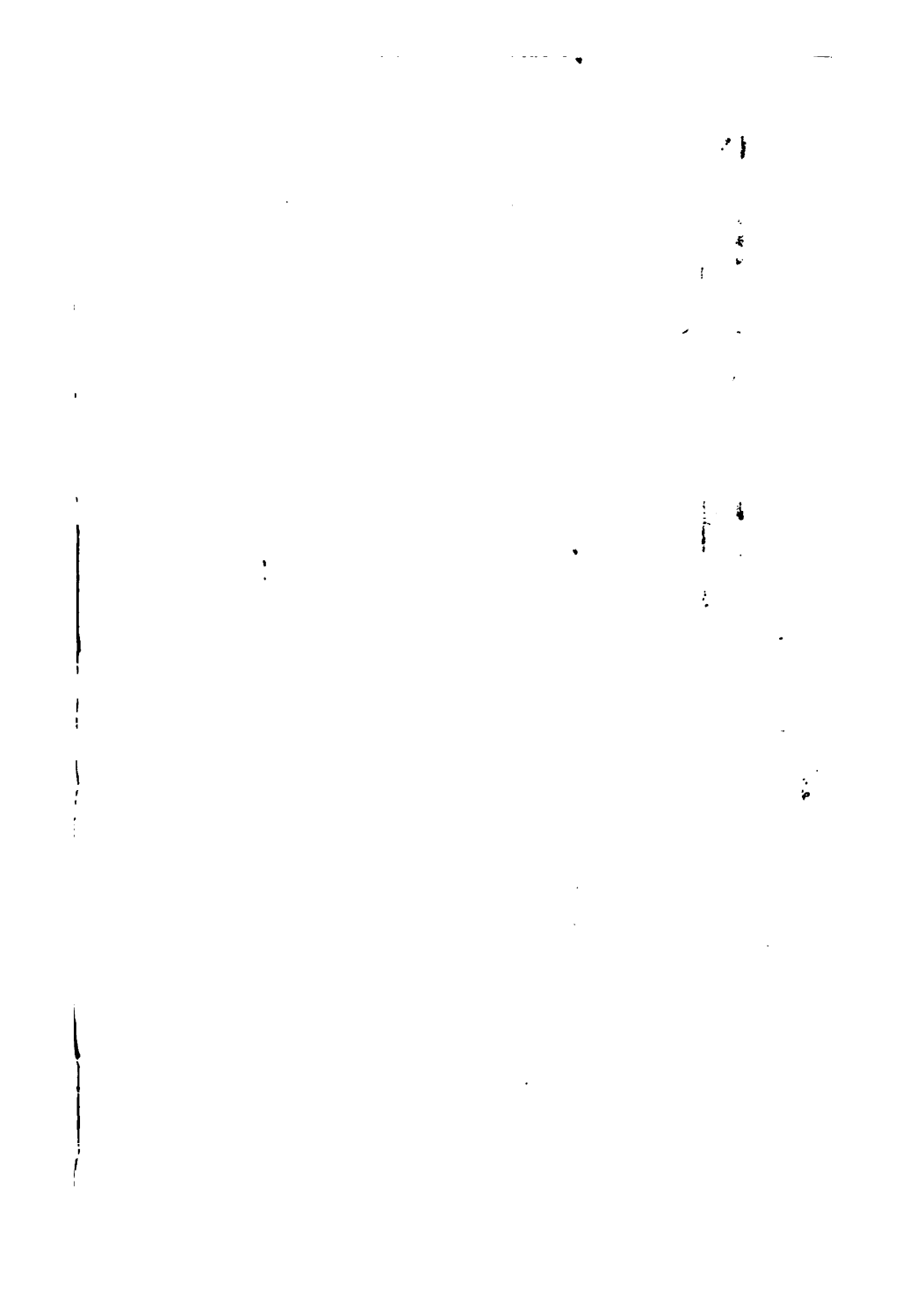
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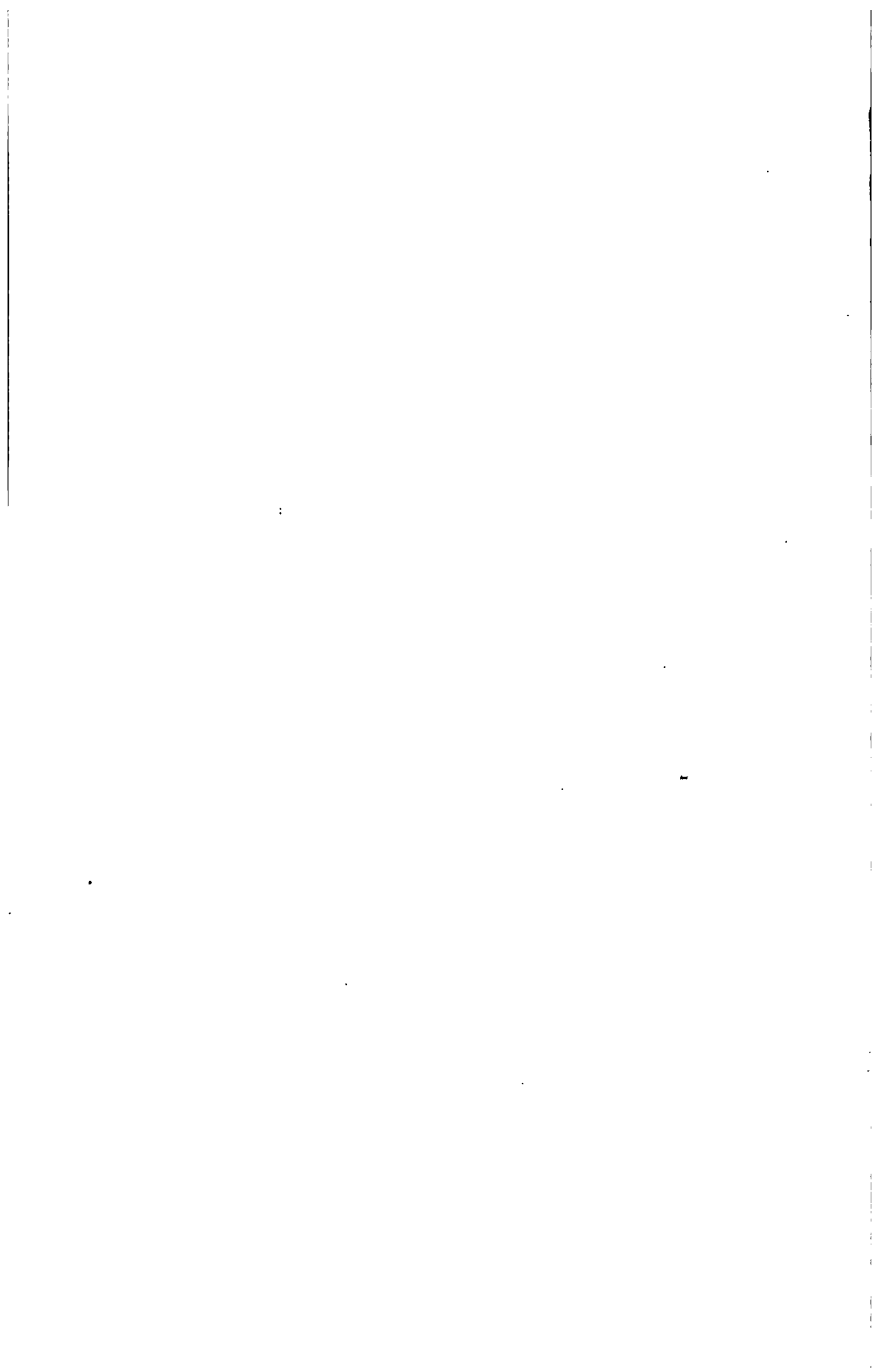
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PRELIMINARY ESSAY
ON THE
INTELLECTUAL POWERS OF MAN:

BY
THOMAS REID, D.D.

WITH
NOTES, SECTIONAL HEADINGS, QUESTIONS FOR
SELF-EXAMINATION, AND SYNOPTICAL
TABLE OF CONTENTS.

*The greatest part of the questions and controversies that
perplex mankind are caused by the doubtful and uncertain
use of words. —LOCKE.*

GLASGOW:
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A BRIEF NOTICE OF DR. REID.

THOMAS REID, D.D., a parish clergyman, professor, and celebrated philosopher of Scotland, was born, on the 26th of April, 1710, among the Grampians, at the manse of Strachan, which is a moorland parish in Kincardineshire. His father, the Rev. Lewis Reid, was minister of this parish for fifty years, and most of his ancestors had been ministers of the Church of Scotland since the establishment of Protestantism. Through his father, Thomas Reid was thus of a long ecclesiastical descent, and by his mother he was connected with the Gregorys—the most illustrious scientific ancestry of which Scotland could boast; for her brother, David Gregory, was Savilian Professor of Astronomy at Oxford, and a well-known friend of Sir Isaac Newton, and two of her younger brothers were at the same time Professors of Mathematics—the one at St. Andrews and the other at Edinburgh—and by whom the Newtonian philosophy was introduced and first taught in the Scottish Universities.

Thomas Reid received the rudiments of his education at the fireside of the manse of Strachan, for two years in the neighbouring parish school of Kincardine O'Neil, latterly at Aberdeen, under an able and diligent teacher, and at the tender age of twelve years, he entered, in 1722, as a student in Marischal College there. Here he studied Philosophy, for three years, under Dr. George Turnbull. Reid took his degree of Master in 1726, and devoted the following years

to the usual course of theological study. The sessions of the College, at that time, were very short, and the teaching there, according to Reid's own account of it, was meagre and superficial.

Like a great many men, who have risen to eminence, Reid gave no early indications of it; but industry and modesty were conspicuous in him from childhood. His parish school-master, however, had predicted that "he would turn out to be a man of good and well-wearing parts"—an epithet, which happily described that capacity of patient thought, which so much distinguished his philosophical pursuits.

His stay at the University was prolonged beyond the common term, in consequence of his appointment to the office of Librarian. This situation was very congenial to him; and, during this period, he formed an intimacy with John Stewart, afterwards Professor of Mathematics in Marischal College. Reid resigned this office of Librarian, in 1736; and in 1737, he was presented by the King's College of Aberdeen, to the Church and Parish of New Machar, in the same county. Here he met, at first, with violent opposition, and he was even exposed to personal danger. However, he lived it down by unwearied attention to his duties, by his mild and forbearing temper, and by the active spirit of his humanity. It is said that he had neglected the practice of composition to a more than ordinary degree in the earlier part of his studies. And this is probably the reason, why he found it so difficult to write sermons. This literary fact is worthy of notice, when contrasted with that ease, perspicuity, and purity of style, which Reid afterwards attained, and on which Hume compliments

him. But it is believed that the number of original sermons, which Reid wrote, whilst discharging the duties of a country clergyman, was not inconsiderable. Here, in the rural and sequestered parish of New Machar, unknown to fame, he spent the greater part of his time, "in the most intense study; more particularly in a careful examination of the laws of external perception, and of the other principles which form the groundwork of human knowledge. His chief relaxations were gardening and botany, to both of which pursuits he retained his attachment even in old age."

Reid's first publication was an "Essay on Quantity," which was occasioned by reading the work of Dr. Hutcheson, of Glasgow, in which Simple and Compound Ratios are applied to Virtue and Merit.

In 1752, Reid was elected Professor of Philosophy in King's College, Aberdeen. His academical lectures included Mathematics and Physics, as well as Logic and Ethics. In 1764, Reid published his "Inquiry into the Human Mind." This original and profound work attracted general attention, and Reid was immediately appointed to the Chair of Moral Philosophy, in the University of Glasgow, vacant in 1764, by the resignation of Adam Smith, and which had formerly been held by Hutcheson and Carmichael. But the two most comprehensive of Reid's philosophical works—"Essays on the Intellectual Powers of Man," and "Essays on the Active Powers of the Human Mind," appeared at the close of his life—the former in 1785, and the latter in 1788.

The value of these Essays, as a sequel to Locke's Essay on the Understanding, and as an analytical commentary on the whole of modern metaphysics, is now fully appreciated.

Dr. Reid lived to a good and hale old age, having died at Glasgow on the 7th of October, 1796, in his eighty-seventh year.

The novel and bold speculations of Hume, and the talent and acuteness with which they were promulgated and exemplified, were the means to continue and foster a taste for metaphysical studies, particularly in Scotland, during the latter half of the eighteenth century. Dr. Reid's "Inquiry into the Human Mind," was designed as an attack on the Ideal Theory, and on the sceptical conclusions, which Hume deduced from it. It is said that the author had even the modesty and candour to submit it to Hume before its publication; and that the latter, with his usual good-nature and complacency, owned the intrinsic worth of the Treatise. The merit of Dr. Reid as a correct reasoner, and a profound and original thinker on Moral Science, exempt from the jargon of the Schools of Philosophy, and founding his speculations on inductive reasoning, has been generally admitted. The Ideal Theory, which he attacked, taught that "nothing is perceived but what is in the mind, which perceives it; that we really do not perceive things that are external, but only certain images and pictures of them imprinted on the mind, and which are called impressions and ideas. This doctrine Reid had himself believed, till, finding that it led to important conclusions, he asked himself the question: What evidence have I for this doctrine, that all the objects of my knowledge are ideas in my own mind? He at once instituted deep inquiry into this subject, but he could find no evidence for the principle, excepting, as he says, the dogmatic authority of philosophers. Dugald Stewart says

of Reid, that it is by the logical rigour of his method of investigating metaphysical subjects—imperfectly understood even by the disciples of Locke—still more than by the importance of his particular conclusions, that he stands so conspicuously distinguished among those, who have hitherto prosecuted analytically the study of man. In the dedication of his "Inquiry into the Human Mind," Reid incidentally makes a definition, which is very felicitous, and most applicable to himself in his deep and patient metaphysical researches. "The productions of Imagination," he says, "require a genius, which soars above the common rank ; but the treasures of knowledge are commonly buried deep, and may be reached by those drudges, who can dig with labour and patience for them, though they may not have wings wherewith to fly." And when a man has deeply studied his subject, it is not difficult for him, though he may have neglected the art of composition like Reid, to express, like him also, his thoughts in a clear, facile, and forcible style of language.

ESSAYS

ON THE

INTELLECTUAL POWERS OF MAN.

FIRST ESSAY.

CHAPTER I.

EXPLICATION OF WORDS.

I. *A chief impediment to the progress of knowledge.*—There is no greater impediment to the advancement of knowledge than the *ambiguity of words*.¹ To this chiefly it is owing that we find sects and parties in most branches of science ; and disputes, which are carried on from age to age, without being brought to an issue.

¹ Ambiguity of words, that is, words of doubtful or uncertain meaning.

II. *Cause of the progress of mathematical sciences.*—Sophistry¹ has been more effectually excluded from mathematics and natural philosophy than from other sciences. In mathematics it had no place from the beginning: mathematicians having had the wisdom *to define accurately the words they use*, and to lay down, as axioms,² the first principles on which their reasoning is grounded. Accordingly, we find no parties among mathematicians, and hardly any disputes.³

In natural philosophy, there was no less sophistry, no less dispute and uncertainty, than in other sciences, until, about a century and a half ago, this science began to be built upon the foundation of clear definitions and self-evident axioms. Since that time, the science, as if watered by the dew of heaven, has grown apace; disputes have ceased, truth has prevailed, and the science has received greater increase in two centuries than in two thousand years before.

III. *The foundation of all science.*—It were to be wished that this method, which has been so successful in those branches of science, were attempted in others; for defini-

¹ Sophistry, that is, fallacious reasoning.

² Axioms, self-evident truths, about which there can be no dispute.

³ The absence of party strife among mathematicians may, however, be as much owing to mathematics itself as to the superior wisdom of its accurate definitions and self-evident axioms on which it is founded. Mathematics is here employed in its restricted sense of geometry, or that science which treats of *pace*. But natural philosophy includes, besides geometry, those sciences which treat of time, motion, matter, and force, that is, algebra or universal arithmetic, kinematics, physics, and dynamics.

tions and axioms are the foundations of all science.¹ But, that definitions may not be sought where no definition can be given, nor logical definitions be attempted, where the subject does not admit of them, it may be proper to lay down some general principles concerning definition, for the sake of those, who are less conversant with this branch of logic.

*Terms of art.*²—When one undertakes to explain any art or science, he will have occasion to use many words that are common to all that use the same language, and some that are peculiar to that art or science. Words of the last kind are called *terms of the art*, or technical terms, and ought to be distinctly explained, so that their meaning may be understood.

IV. *All words do not admit of being defined.*³—A definition is nothing else than an explanation of the meaning of a word, by words whose meaning is already known. Hence it is evident, that *every word cannot be defined*; for the definition must consist of words; and there could be no definition, if there were not words previously understood without definition. Common words, therefore, ought to be used in their common acceptance; and, when they have different

1 But, besides definitions and axioms, postulates have also been laid down by mathematicians as the first principles on which their reasoning is grounded. But postulates may almost be regarded as axioms.

2 Terms of art, or technical terms. And these are mostly formed from the Greek.

3 Definitions.—We must carefully distinguish between verbal and real or logical definitions; for though many words cannot be logically defined, yet they may be so verbally, or may be described by circumstances or relations. It was a maxim of the old logicians that *omnis intuitiva notitia est definitio*—all intuitive knowledge is definition—that is, all knowledge immediately perceptive, or without definition, or ratiocination. And this is true both materially and psychologically.

acceptations in common language, these, when it is necessary, ought to be distinguished. But they require no definition. It is sufficient to define words that are uncommon or that are used in an uncommon meaning.

V. *Words which cannot be logically defined.*—It may further be observed, that there are many words, which, though they may need explication, cannot be logically defined. A logical definition, that is, a strict and proper definition, must express the *kind* of thing defined, and the *specific difference* by which the species defined is distinguished from every other species belonging to that kind. It is natural to the mind of man to class things under various kinds, and again to sub-divide every kind into its various species. A species may often be sub-divided into subordinate species, and then it is considered as a kind.

VI. *Individuals, the most general terms, and certain species cannot be logically defined.*—From what has been said of logical definition, it is evident that no word can be logically defined which does not denote a species; because such things only can have a specific difference; and a specific difference is essential to a logical definition. On this account there can be no logical definition of *individual things*, such as London or Paris. (1) *Individuals* are distinguished either by proper names, or by accidental circumstances of time or place; but they have no specific difference; and therefore, though they may be known by proper names, or may be described by circumstances or relations, they cannot be defined. It is no less evident, that (2) the most general words cannot be logically defined, because there is not a more general term of which they are a species.

Nay, we cannot define every species of things, because it happens sometimes that we have not words to express the specific difference. Thus a scarlet colour is, no doubt, a species of colour ; but how shall we express the specific difference by which scarlet is distinguished from green or blue ? The difference of them is immediately perceived by the eye ; but we have not words to express it. These things we are taught by logic.

Without having recourse to the principles of logic, we may easily be satisfied that words cannot be defined, which signify things perfectly simple, and void of all composition. This observation, I think, was first made by Des Cartes, and afterwards more fully illustrated by Locke. And however obvious it appears to be, many instances may be given of great philosophers who have perplexed and darkened the subjects they have treated, by not knowing, or not attending to it.¹

VII. *Remarkable defect of the Aristotelian Philosophy.*—When men attempt to define things, which cannot be defined their definitions will always be either obscure or false. It was one of the capital defects of Aristotle's philosophy, that he pretended to define the simplest things, which neither can be, nor need be defined ; such as *time* and *motion*.²

1 Words, which signify things perfectly simple and void of all composition cannot be defined without having recourse to the principle of logic. This observation is thought to be due rather to Aristotle than to Des Cartes and Locke.

2 Time and motion.—Aristotle's definitions, however, have been much applauded. And yet it is needful that these two simple things be defined. Motion is change of position in a body. A body which passes from one position in space to another position is motion. And the body moving between these two assignable points does so not all at once, but in a certain duration. And this duration is said to be an interval of time. Accordingly, motion connects the ideas of space and time.

Among modern philosophers, I know none who has abused definition so much as Wolfius, the famous German philosopher, who, in a work on the human mind, called *Psychologia Empirica*, consisting of many hundred propositions, fortified by demonstrations, with a proportional accompaniment of definitions, corollaries, and scholia, has given so many definitions of things, which cannot be defined, and so many demonstrations of things self-evident, that the greatest part of the work consists of tautology,¹ and ringing changes upon words.

VIII. *Terms peculiar to pneumatology² are often incapable of definition.*—There is no subject in which there is more frequent occasion to use words, that cannot be logically defined, than in treating of the powers and operations of the mind. The simplest operations of our minds must all be expressed by words of this kind. No man can explain, by a logical definition, what it is to think, to apprehend, to believe, to will, to desire. Every man, who understands the language, has some notion of the meaning of these words; and every man, who is capable of reflection, may, by attending to the operations of his own mind, which are signified by them, form a clear and distinct notion of them; but they cannot be logically defined.

Since, therefore, it is often impossible to define words, which we must use on this subject, we must as much as possible use "common words in their common acceptation," pointing out their various senses where they are ambiguous;

¹ Tautology, that is, repetition of the same words, or of the same sense in different words. But tautology must be clearly distinguished from pleonasm, or that figure of speech by which more words are used than are necessary.

² Pneumatology.—This term is now superseded by psychology. Both are from the Greek.

and when we are obliged to use words less common, we must endeavour to explain them as well as we can, without affecting to give logical definitions, when the nature of the thing does not admit of them.

The following observations on the meaning of certain words are intended to supply, as far as we can, the want of definitions, by preventing ambiguity or obscurity in the use of them.

1. By the *mind* of a man, we understand that in him which thinks, remembers, reasons, wills.³ The essence both of body and of mind is unknown to us. We know certain properties of the first, and certain operations of the last, and by these only we can define or describe them. We define body to be that which is extended, solid, moveable, divisible. In like manner, we define mind to be that which thinks, We are conscious that we think, and that we have a variety of thoughts of different kinds—such as seeing, hearing, remembering, deliberating, resolving, loving, hating, and many other kinds of thought, all of which we are taught by nature to attribute to one internal principle; and this principle of thought we call the *mind* or *soul* of man.

2. By the *operations* of the mind, we understand every mode of thinking of which we are conscious.

It deserves our notice, that the various modes of thinking have always, and in all languages, as far as we know, been called by the name of “operations” of the mind, or by

³ This definition of the mind of man by Reid answers to Aristotle's second definition of it *a posteriori* from its phenomena—that by which we live, feel or perceive, will, move, and understand. But in his first definition of it he defines it to be—The first *ἐντελέχεια*, or that by which it actually is of a natural body which has potential life.

names of the same import.¹ To body we ascribe various properties, but not operations, properly so called ; it is extended, divisible, moveable, inert ; it continues in any state in which it is put ; every change of its state is the effect of some force impressed upon it, and is exactly proportional to the force impressed, and in the precise direction of that force. These are the general properties of matter, and these are not operations ; on the contrary, they all imply its being a dead inactive thing, which moves only as it is moved, and acts only by being acted upon.

But the mind is from its very nature a living and active being. Everything we know of it implies life and active energy ; and the reason why all its modes of thinking are called its operations, is, that in all, or in most of them, it is not merely passive as body is, but is really and properly active.

IX. *The mind active according to human judgment.*—In all ages, and in all languages, ancient and modern, the various modes of thinking have been expressed by words of active signification, such as seeing, hearing, reasoning, willing and the like. It seems therefore to be the natural judgment of mankind, that the mind is active in its various ways of thinking ; and for this reason they are called its operations, and are expressed by active verbs.

It may be made a question, What regard is to be paid to this natural judgment ? May it not be a vulgar error ?

¹ Operations of the mind and the properties of matter.—We speak of the mind itself as a faculty, and its phenomena as operations ; but we ascribe to inert matter only properties and not operations. Manlius has thus distinguished the two ; —*Materiæ datum est cogi, sed cogere menti* ;—it has been given to matter to be moved, but to the mind to move.

Philosophers, who think so, have, no doubt, a right to be heard. But until it is proved that the mind is not active in thinking—but merely passive—the common language with regard to its operations ought to be used, and ought not to give place to a phraseology¹ invented by philosophers, which implies its being merely passive.

3. The words *power* and *faculty*, which are often used in speaking of the mind, need little explication. Every operation supposes a power in the being that operates; for, to suppose anything to operate which has no power to operate, is manifestly absurd. But, on the other hand, there is no absurdity in supposing a being to have power to operate, when it does not operate. Thus, I may have power to walk, when I sit; or to speak, when I am silent. Every operation, therefore, implies power; but the power does not imply the operation.

X. *Faculties, habits, capacity.*²—The *faculties* of the mind, and its *powers*, are often used as synonymous expressions. But as most synonymes³ have some minute distinction that deserves notice, I apprehend that the word *faculty* is most

1 Phraseology—diction, manner of speech.

2 *Faculties, powers, habits, capacities.*—These words are all of Latin origin, and it will be well to mark their distinctions. Powers is a generic term, and *faculties* a specific one. Powers are active and passive, natural and acquired. Powers innate or natural and active are named *faculties*. Powers, natural and passive, are *capacities* or *receptivities*. Powers acquired are *habits*, and these may be either active or passive. The power, again, of acquiring a habit is a disposition, or rather, according to Reid, a capacity.

3 *Synonymes*, that is, words of the same meaning. Synonymy is the rhetorical figure of expressing the same thing by different words, as opposed to metonymy, by which one word is put for another, as the matter for the instrument—he died by steel, that is, by the sword.

properly applied to those powers of the mind which are *original* and *natural*, and which make a part of the constitution of the mind. There are other powers which are *acquired* by use, exercise, or study, that are not called faculties, but *habits*. There must be something in the constitution of the mind necessary to our being able to acquire habits, and this is commonly called *capacity*.

4. We frequently meet with a distinction in writers upon this subject, between things *in the mind* and things *external* to the mind. The powers, faculties, and operations of the mind are things in the mind. Every thing is said to be *in the mind*, of which the mind is the *subject*.¹ It is self-evident that there are some things which cannot exist without a subject to which they belong, and of which they are attributes. Thus, colour must be in something coloured; figure in something figured; thought can only be in something that thinks; wisdom and virtue cannot exist but in some being that is wise and virtuous. When, therefore, we speak of things in the mind, we understand by this, things of which the mind is the subject. Excepting the mind itself and things in the mind, all other things are said to be external. It ought, therefore, to be remembered that this distinction between things in the mind and things external, is not meant to signify the place of the things we speak of, but their *subject*.

There is a figurative sense in which things are said to be in the mind, which it is sufficient barely to mention. We

¹ Subject and object, subjective and objective, must be carefully distinguished. In psychological language, the subject is the mind itself, that knows and thinks, and the object that which is known or thought upon, or of which the mind takes cognizance. Subjective means relating to the subject, and objective to the object.

say, such a thing was not in my mind, meaning no more than that I had not the least thought of it. By a figure, we put the thing for the thought of it. In this sense, external things are in the mind as often as they are the objects of our thought.

5. *Thinking* is a very general word, which includes all the operations of our minds, and is so well understood as to need no definition.

To *perceive*, to *remember*, to be *conscious*, and to *conceive* or *imagine*, are words common to philosophers and to the vulgar. They signify different operations of the mind, which are distinguished in all languages, and by all men that think. I shall endeavour to use them in their most common and proper acceptation, and I think they are hardly capable of strict definition. But as some philosophers, in treating of the mind, have taken the liberty to use them very improperly, so as to corrupt the English language, and to confound things which the common understanding of mankind hath always led them to distinguish, I shall make some observations on the meaning of them, that may prevent ambiguity or confusion in the use of them.

XI. *Perception, Conception, Consciousness, and Memory.*¹

¹ Perception, conception, consciousness, and memory.—These words are all of Latin origin. Perception is the operation of the mind with respect to things external or around it—*id circa quod*; conception is the operation of the mind with respect to the formation of ideas in the mind itself—*id in quo*; consciousness is the immediate knowledge which we have of our present thoughts and of all the operations in the mind; and memory is that operation of the mind by which we remember what is past, and it may cover the whole field of the three foregoing operations of the mind. For I may remember the objects of perception when I stood on the summit of some lofty mountain, the conception or ideas which then passed through my mind, and the consciousness of my own littleness, and of the majesty of God and the grandeur of nature which I then felt.

—6. First, We are never said to *perceive* things, *of the existence of which we have not a full conviction*. I may *conceive* or *imagine* a mountain of gold or a winged horse, but no man says that he perceives such a creature of imagination. Thus, *perception* is distinguished from *conception* or imagination. Secondly, Perception is applied only to *external objects, not to those that are in the mind itself*. When I am pained, I do not say that I perceive pain, but that I feel it, or that I am conscious of it. Thus, *perception* is distinguished from *consciousness*. Thirdly, The immediate object of perception must be *something present, and not what is past*. We may *remember* what is past, but do not perceive it. I may say, I perceive such a person has had the *small pox*, but this phrase is figurative, although the figure is so familiar that it is not observed. The meaning of it is that I perceive the pits in his face, which are certain signs of his having had the small-pox. We say we perceive the thing signified, when we only perceive the sign. But when the word *perception* is used properly, and without any figure, it is never applied to things past. And thus it is distinguished from *remembrance*.

XII. *Original signification of "perception,"¹ and its analogical application.*—In a word, perception is most properly applied to the *evidence which we have of external objects by our senses*. But as this is a very clear and cogent kind of evidence, the word is often applied by analogy to the evi-

² Perception in its original signification denotes the evidence which we have of external objects by our senses. Its special province, then, is the five senses; but, perception is often analogically applied to the evidence of reason or of testimony when it is clear and cogent as that of the senses is. Perception in Latin, is *perceptio*; in Greek, *αἰσθησις*; in French, *perception*; in German, *empfindung* and in Italian, *percezione*.

dence of *reason or of testimony*, when it is clear and cogent. The perception of external objects by our senses is an operation of the mind of a peculiar nature, and ought to have a name appropriated to it. It has so in all languages. And, in the English, I know no word more proper to express this act of the mind than perception. Seeing, hearing, smelling, tasting, and touching or feeling, are words that express the operations proper to each sense; perceiving expresses that which is common to them all.

XIII. *Abuse of the word "perception" by Hume.*—The observations made on this word would have been unnecessary, if it had not been so much abused in philosophical writings upon the mind; for, in other writings, it has no obscurity. Although this abuse is not chargeable on Mr. Hume only, yet I think he has carried it to the highest pitch. The first sentence of his "Treatise of Human Nature" runs thus:—"All the *perceptions* of the human mind resolve themselves into two distinct heads, which I shall call impressions and ideas." He adds, a little after, that, under the name of impressions, he comprehends all our sensations, passions, and emotions. Here we learn that our passions and emotions are perceptions.¹ I believe no English writer before him ever gave the name of a perception to any passion or emotion. When a man is angry, we must say that he has the perception of anger. When he is in love, that he has the perception of love. He speaks often of the perceptions of memory, and of the perceptions of imagination; and he might as well speak of the hearing of

¹ Passions and emotions are not perceptions, as Hume affirmed; for we cannot speak of the perceptions of love, hatred, anger, or pity.

sight, or of the smelling of touch; for surely hearing is no more different from sight, or smelling from touch, than perceiving is from remembering or imagining.

7. *Consciousness*¹ is a word used by philosophers to signify that immediate knowledge which we have of our present thoughts and purposes, and, in general, of all the operations of our minds. Whence we may observe, that consciousness is only of things present. To apply consciousness to things past, which sometimes is done in popular discourse, is to confound consciousness with memory; and all such confusion of words ought to be avoided in philosophical discourse. It is likewise to be observed, that consciousness is only of things in the mind, and not of external things. It is improper to say, I am conscious of the table which is before me, I perceive it, I see it, but do not say I am conscious of it. As that consciousness by which we have a knowledge of the operations of our own minds, is a different power from that by which we perceive external objects, and as these different powers have different names in our language, and, I believe, in all languages, a philosopher ought carefully to preserve this distinction, and never to confound things so different in their nature.

XIV. "*Conception*"² distinguished from all other operations of the mind.—8. *Conceiving, imagining, and apprehending*.

1 *Consciousness*.—In the philosophy of Descartes and Locke, consciousness and perception were nearly the same; but Reid's restriction with respect to these terms is most apt. For consciousness is the knowledge only of things in the mind, while perception is the knowledge of external objects. Consciousness strictly refers to things present, and memory to things of the past, though we may say we have the memory of the consciousness of that hour, when any particular event or circumstances happened to us.

2 *Conception*.—This is an operation of the mind quite different from perception, memory, and consciousness. These latter all imply the persuasion or conviction of what is or has been; but what never had nor has any existence may be conceived, imagined, or apprehended. Therefore to conceive, imagine, or apprehend in the proper sense is an act of the mind, which implies no belief or judgment at all, except of its own ideal reality.

hending are commonly used as synonymous in our language, and signify the same thing which the logicians call *simple apprehension*. This is an operation of the mind different from all those we have mentioned. Whatever we perceive, whatever we remember, whatever we are conscious of, we have a full persuasion or conviction of its existence. But we may conceive or imagine what has no existence, and what we firmly believe to have no existence. What never had an existence cannot be remembered ; what has no existence *at present* cannot be the object of perception or of consciousness ; but what never had nor has any existence may be conceived. Every man knows that it is easy to conceive a winged horse or a centaur as it is to conceive a horse or a man. Let it be observed, therefore, that to *conceive*, to *imagine*, to *apprehend*, when taken in the proper sense, signify an act of the mind *which implies no belief or judgment at all*. It is an act of the mind by which nothing is affirmed or denied, and which, therefore, can neither be true nor false.

XV. *Another signification of the same words*.—But there is another and a very different meaning of those words, so common and so well authorised in language, that it cannot easily be avoided ; and on that account we ought to be the more on our guard, that we be not misled by the ambiguity. Politeness and good breeding lead men, on most occasions, to express their opinions with modesty, especially when they differ from others whom they ought to respect. Therefore, when we would express our opinion modestly, instead of saying, “This is my opinion,” we say, “I conceive it to be thus, I imagine or apprehend it to be thus ;” which is under-

stood as a modest declaration of our judgment. In like manner, when anything is said which we take to be impossible, we say, "We cannot conceive it," meaning that we cannot believe it.

XVI. *Ambiguity in their meanings avoided.* Thus we see, that the words *conceive*, *imagine*, *apprehend*, have two meanings, and are used to express two operations of the mind, which ought never to be confounded. Sometimes they express simple apprehension, which implies no judgment at all; sometimes they express judgment or opinion. This ambiguity ought to be attended to, that we may not impose upon ourselves or others by the use of them. (1) The *ambiguity* is indeed *remedied*, in a great measure, by their construction. When they are used to express simple apprehension, they are followed by a noun in the *objective case*, which signifies the object conceived. But when they are used to express opinion or judgment, they are commonly followed by a verb in the *infinitive mood*. "I conceive an Egyptian pyramid." This implies no judgment. "I conceive the Egyptian pyramids to be the most ancient monuments of human art." This implies judgment. (2) When the words are used in the last sense, the thing conceived must be a proposition, because judgment cannot be expressed but by a *proposition*. When they are used in the first sense, the thing conceived may be no proposition, but a simple term only, as a pyramid, an obelisk, Yet it may be observed, that even a proposition may be simply apprehended without forming any judgment of its truth or falsehood: for it is one thing to conceive the meaning of a proposition; it is another thing to judge it to be true or false.

Although the distinction between simple apprehension and every degree of assent or judgment, be perfectly evident to every man, who reflects attentively on what passes in his own mind ; although it is very necessary, in treating of the powers of the mind, to attend carefully to this distinction ; yet, in the affairs of common life, it is seldom necessary to observe it accurately. On this account we shall find, in all common languages, the words which express one of those operations frequently applied to the other. To think, to suppose, to imagine, to conceive, to apprehend, are the words we use to express simple apprehension ; but they are all frequently used to express judgment. Their ambiguity seldom occasions any inconvenience in the common affairs of life, for which language is framed. But it has perplexed philosophers, in treating of the operations of the mind, and will always perplex them, if they do not attend accurately to the different meanings, which are put upon those words on different occasions.

XVII. 9. *Distinction between the operations of the mind and their objects.*¹—Most of the operations of the mind, from their very nature, must have *objects* to which they are directed. and about which they are employed. He that perceives, must perceive something ; and that which he perceives is called the object of his perception. To perceive, without having any object of perception, is impossible. The

1 The distinction between the operations of the mind and their objects is well illustrated by the simple parts of a sentence—the subject, verb or predicate, and the object. The subject or nominative is the mind itself, the verb denotes the operation of the mind, and the object of the verb, is the object upon which the mind operates. So the mind that perceives, the operation of perceiving, and the object perceived are three distinct things.

mind that perceives, the object perceived, and the operation of perceiving that object, are distinct things, and are distinguished in the structure of all languages. In this sentence, "I see or perceive the moon," *I* is the person or *mind*; the active verb *see* denotes the operation of that mind; and the *moon* denotes the object. What we have said of perceiving, is equally applicable to most operations of the mind. Such operations are, in all languages, expressed by active transitive verbs: and we know that, in all languages, such verbs require a thing or person, which is the agent, and a noun following in an oblique case, which is the object. Whence it is evident that all mankind, both those who have contrived language, and those who use it with understanding, have distinguished these three things as different, to wit, the *operations* of the mind, which are expressed by active verbs, the *mind* itself, which is the nominative to those verbs, and the *object*, which is, in the oblique case, governed by them.

XVIII. *This distinction confounded by Hume.*¹—It would have been unnecessary to explain so obvious a distinction, if some systems of philosophy had not confounded it. Mr. Hume's system, in particular, confounds all distinction between the *operations* of the mind and their *objects*. When he speaks of the ideas of memory, the ideas of imagination,

¹ Hume's philosophy makes no distinction between the operations of the mind and their objects; for when he speaks of the ideas of memory, the ideas of the imagination, and of the ideas of sense, we are not certain whether he means the operations of the mind, or their objects. He further assumes, that distinctions found in the structure of all languages, have no foundation in nature; but Reid believes that no instance will be found of a distinction made in all language, which has not a just foundation in nature.

and the ideas of sense, it is often impossible, from the tenor of his discourse, to know whether, by those ideas, he means the operations of the mind, or the objects about which they are employed. And indeed, according to his system, there is no distinction between the one and the other.

A philosopher is, no doubt, entitled to examine even those distinctions that are to be found in the structure of all languages, and, if he is able to show that there is no foundation for them in the nature of the things distinguished, if he can point out some prejudice common to mankind which has led them to distinguish some things that are not really different, in that case, such a distinction may be imputed to a vulgar error, which ought to be corrected in philosophy. But when, in the first setting out, he takes it for granted, without proof, that distinctions found in the structure of all languages, have no foundation in nature; this surely is too fastidious a way¹ of treating the common sense of mankind. When we come to be instructed by philosophers, we must bring the old light of common sense along with us, and by it judge of the new light which the philosopher communicates to us. But when we are required to put out the old light altogether, that we may follow the new, we have reason to be on our guard. There may be distinctions that have a real foundation, and which may be necessary in philosophy, which are not made in common language, because not necessary in the common business of life. But I believe no instance will be found of a distinction made in all languages, which has not.

1 Fastidious a way; that is, not delicate or hypercritical, but disdainful, proud, haughty.

a just foundation in nature.

XIX. "*Idea*" used in a twofold sense.¹—The word *idea* occurs so frequently in modern philosophical writings upon the mind, and is so ambiguous in its meaning, that it is necessary to make some observations upon it. There are chiefly two meanings of this word in modern authors, a popular and a philosophical.

First, in popular language, *idea* signifies the same thing as conception, apprehension, notion. *To have an idea of any thing, is to conceive it.* To have a distinct idea, is to conceive it distinctly. To have no idea of it, is not to conceive it at all. It was before observed, that conceiving or apprehending has always been considered by all men as an act or operation of the mind, and on that account it has been expressed in all languages by an active verb. When, therefore, we use the phrase of having ideas, in the popular sense, we ought to attend to this, that it signifies precisely the same thing which we commonly express by the active verbs conceiving or apprehending.

When the word *idea* is taken in this popular sense, no man can possibly doubt whether he has ideas. For he that doubts must think, and to think is to have ideas.

¹ The term *idea*, which is of Greek origin, strictly denotes a mental image or picture, and whence we have ideal, ideally, and ideality—words all relating to images or pictures formed in the mind. Its true and philosophical meaning then is not that act of the mind, which we call thought or conception, but some immediate object of thought or the product of thought. The *idea* is in the mind itself, the remote or mediate object may be external, past or future, and it may never have existed. It denotes the same as *εἶδος*, form, kind, or shape. Abstain, says the apostle, from every *εἶδος*, appearance of evil, that is, not semblance of evil, but form, kind or shape of evil: I. Thess., v., 22. Reid, however, believes *ideas*, in this sense, to be a mere fiction of philosophers.

Sometimes, in popular language, a man's ideas signify his opinions. The ideas of Aristotle or of Epicurus, signify the opinions of these philosophers. What was formerly said of the words *imagine, conceive, apprehend*, that they are sometimes used to express judgment, is no less true of the word *idea*. This signification of the word seems indeed more common in the French language than in English. But it is found in this sense in good English authors, and even in Mr. Locke. Thus we see, that having *ideas*, taken in the popular sense, has precisely the same meaning with *conceiving, imagining, apprehending, and has likewise the same ambiguity*. It may, therefore, be doubted, whether the introduction of this word into popular discourse, to signify the operation of conceiving or apprehending, was at all necessary. For, *first*, we have, as has been shown, several words, which are either originally English, or have been long naturalized, that express the same thing; why therefore should we adopt a Greek word in place of these, any more than a French or a German word? Besides, the words of our own language are less ambiguous. For the word *idea* has, for many ages, been used by philosophers, as a term of art; and in the different systems of philosophers means very different things.

Secondly, according to the *philosophical* meaning of the word *idea*, it does not signify that act of the mind which we call thought or conception, but some object of thought. Ideas, according to Mr. Locke (whose very frequent use of this word has probably been the occasion of its being adopted into common language), "are nothing but the immediate objects of the mind in thinking." But of those objects of

thought called ideas, different sects of philosophers have given a very different account. Bruckerus, a learned German, wrote a whole book giving the history of ideas.

XX. *The three first Principles of the Pythagoreans.*¹—The most ancient system we have concerning ideas, is that which is explained in several dialogues of Plato, and which many ancient, as well as modern writers, have ascribed to Plato as the inventor. But it is certain that Plato had his doctrine upon this subject, as well as the name *idea*, from the school of Pythagoras. We have still extant a tract of Timæus the Locrian, a Pythagorean philosopher, concerning

¹ The Pythagoreans. These Pythagorean treatises, including that by Timæus are supposed to be forgeries. They, however, clearly state the doctrines and phraseology of Plato and Aristotle. The first tenet of these philosophers was the eternity of matter—some asserting the eternity and self-existence of the world; others ascribing it to a fortuitous concourse of atoms; some maintaining that water was the principle of all things; others declaring that distinction to be due to the air; and others to homogeneal parts, etc. But they all concurred in this thought, that the matter of the world was unproduced, that is, that it was eternal. They never argued among themselves the question, whether the world was made out of nothing. They all agreed that this was impossible. And so, as they had no accurate idea of Creation, properly so called, they had no word to express it, that is, a word signifying to produce from nothing, or to bring into being what had no previous existence. So there is no Greek or Latin word equivalent to the Hebrew *bera*, to create. Thus, the world by wisdom knew not its Maker. But God has not left us to grope in the dark concerning Himself or ourselves. Accordingly, the Holy Scriptures were given to extricate us from this labyrinth of error, and inform us that all things, animate and inanimate, were, at the beginning of time, created by a Being of infinite power and wisdom, Who was before all time and all worlds. The very opening of the Scriptures declares, that in the beginning, God created the heavens and the earth. But this cannot relate to the form of the heavens and the earth, because it is said in the next verse, that the earth was without form, *ἀτακτα*, "without order," in mole confusa et indigesta, "in a confused and chaotic mass," and void or hollow, *impleta solum vacuo aere*, "filled only with empty air." Therefore, the things which are, were not made of the things which do appear. Therefore, this Creator made all things out of nothing.

the soul of the world, in which we find the substance of Plato's doctrine concerning ideas. They were held to be eternal, uncreated, and immutable forms or models, according to which the Deity, of an *eternal matter*, made every species of things that exists. Those philosophers held, that there are three first principles of all things. *First*, an eternal matter, of which all things were made; *secondly*, eternal and immaterial forms or ideas, according to which they were made; and, *thirdly*, an efficient cause, the Deity, who made them. The mind of man, in order to its being fitted for the contemplation of these eternal ideas, must undergo a certain purification, and be weaned from sensible things. The eternal ideas are the only object of science, because the *objects of sense* being in a perpetual flux, *there can be no real knowledge with regard to them.*

XXI. *How far the "latter" differ from the "elder" Platonists.*—The philosophers of the Alexandrian school, commonly called *the latter Platonists*,¹ made some change upon the system of the ancient Platonists with respect to

1 The latter Platonists. These seem to have improved the second tenet. They conceived those ideas, or eternal forms of things, to exist, not of themselves, but in the Divine Mind, and to be the models and patterns according to which all things were made—the natures and essences of all things being known to Him from eternity :—

"Then lived the Eternal One; then, deep retired
In His unfathomed Essence, He did view
At large the uncreated images
Of things."

For the invisible things of Him are clearly seen from the creation of the world, being understood by the things that are made, even His eternal power and Godhead.—Rom. i., 20. How or whence did these philosophers of the Alexandrian school, or latter Platonists, make this improvement? Was it not from their mingling among the Jews and from the dissemination of the Septuagint Translation of the Holy Scriptures?

the eternal ideas. They held them *not* to be a principle distinct from the Deity, but to be the conceptions of things in the divine understanding, the natures and essences of all things being perfectly known to Him from eternity.

XXII. *Malebranche's system of Ideas*.¹—It ought to be observed, that the Pythagoreans and the Platonists, whether

1 The Platonists and Malebranche (1638-1715). The former made the eternal ideas to be the objects of science only, and of abstract contemplation, and not the objects of sense, because these being in perpetual flux, there can be no real knowledge with regard to them. But, says Reid in another essay, it does not appear, as far as I know, that either Plato, or the latter Platonists, or St. Augustine, or the Mystics (who grafted the Platonic notions upon Christianity), thought that we perceive the objects of sense in the divine ideas. They had too mean a notion of our perception of sensible objects to ascribe so high an origin to it. This theory, therefore, of our perceiving the objects of sense in the ideas of the Deity, I take to be the invention of Father Malebranche himself.

This theory of Malebranche, says Hamilton, has been vainly sought for in the Bible, the Platonists, and the Fathers. It is, in fact, more clearly enounced in Homer than in any of these graver sources—

Τόιος γὰρ νόος ἐστὶν ἐπιχθονίων ἀνθρώπων,
Οἶον ἐπ' ἡμᾶρ ἀγῆσι πατὴρ ἀνδρῶν τε θεῶν τε.

For the benefit of the youthful student, it may not be out of place here to enumerate all the possible modes or ways given by Malebranche by which the ideas of sensible objects may be presented to the mind :—Either (1), they come from the bodies which we perceive (Aristotle's doctrine); or (2), the soul has the power of producing them in itself (Hook's); or (3), they are produced by the Deity, either in our creation, or occasionally as there is use for them (Berkeley's); or (4), the soul has in itself virtually and eminently, as the schools speak, all the perfections that it perceives in bodies (Norris's); or (5), the soul is united with a Being, possessed of all perfection, Who has in Himself the ideas of all created things (Malebranche's).

Malebranche endeavours to refute the first four, and confirm the latter by various arguments.

The ideas by which we perceive external objects, says Reid in another place, are said by some to be the ideas of the Deity; but it has been more generally thought that every man's ideas are proper to himself, and are either in his mind, or in his sensorium, where the mind is immediately present. The first is the theory of Malebranche; the second we shall call the common or Newtonian

elder or latter, made the eternal ideas to be objects of science *only*, and of abstract contemplation, not the objects of sense. And in the following particular distinction the ancient system of eternal ideas differs from the modern one of Father Malebranche. He held in common with other modern philosophers, that no external thing is perceived by us immediately, but only by ideas: but he thought that the ideas by which we perceive an external world, are the ideas of the Deity himself, in whose mind the ideas of all things, past, present, and future, must have been from eternity; for the Deity being intimately present to our minds at all times, may discover to us as much of His ideas as He sees proper, according to

theory. With regard to that of Malebranche, it seems to have some affinity with the Platonic notion of ideas, but it is not the same. Upon which, Hamilton says: the Platonic theory of ideas has nothing to do with a doctrine of sensitive perception; and its introduction into the question is only pregnant with confusion; while, in regard to sensitive perception, the peculiar hypothesis of Malebranche is, in fact, not only not similar to the Platonic, but much further removed from it than the common Cartesian theory, and Leibnitzian.

The Platonists and Malebranche excepted, says Reid in another place, all other philosophers, as far as I know, have conceived that there are ideas or images of every object of thought in the human mind, or, at least, in some part of the brain, where the mind is supposed to have its residence.

Whereupon, Hamilton also observes:—The Platonists are no exception; for they allowed the human mind to have potentially within it, the forms or representations for all possible objects of perception; each representation being by the spontaneity of mind itself, elicited into consciousness on occasion of its corresponding object coming within the sphere of sense.

The difference then between the Platonists and Malebranche would seem to be, that while the former conceived these ideas to be the sole objects of science—truth being eternal and immutable, and therefore must have for its object eternal and immutable ideas—the latter held the theory of perceiving the objects of sense in or by the ideas of Deity. 2 Cor., iii., 18; Ps. xxxvi., 9. Probably he quotes these passages from St. Augustine to countenance his theory; but these relate to illumination in moral and divine things, and not to the perception of objects by the senses.

certain established laws of nature. And in His ideas, as in a mirror, we perceive whatever we do perceive of the external world.

XXIII. *Platonic and Aristotelian systems differ.*¹—Thus we have three systems, which maintain that the ideas, which are the immediate objects of human knowledge, are eternal and immutable, and *existed before the things which they represent*. There are other systems, according to which the ideas, which are the immediate objects of all our thoughts, *are posterior to the things which they represent*, and are derived from them. We shall give some account of these ; but as they have gradually sprung out of the ancient Peripatetic system, it is necessary to begin with some account of it.

1 The three systems which maintain that the ideas, which are the immediate objects of human knowledge, are eternal and immutable, and existed before the things which they represent, are (1) that of Pythagoras and Plato, (2) that of the latter Platonists, and (3) that of Malebranche ; the second differing from the first in this respect, that they held these eternal ideas not to be a principle distinct from the Deity, but to be in the Divine Intellect, as the objects of those conceptions, which the Divine Mind must from all eternity have had, not only of everything which He has made, but of every possible existence, and of all the relations of things ; and the third differing from the other two in this respect, that Malebranche thought that the ideas by which we perceive an external world, are the ideas of the Deity Himself, in Whose Mind the ideas of all things, past, present, and future, must have been from all eternity.

There are other systems, which have gradually sprung from the Aristotelian or Peripatetic system, according to which the ideas that are the immediate objects of all our thoughts, are posterior to the things which they represent, and are derived from them.

XXIV. *Peripatetic theory of Ideas*.¹—Aristotle taught, that all the objects of our thought enter at first by the senses; and, since the sense cannot receive external material objects themselves, it receives their species; that is, their objects or *forms*, without the matter; as wax receives the form of the seal, without any of the matter of it. These images or forms, impressed upon the senses, are called *sensible species*,² and are the objects only of the sensitive part of the mind. But, by various internal powers, they are retained, refined, and spiritualized, so as to become objects of (1) *memory* and (2) *imagination*, and, at last, (3) of

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¹ The Peripatetics and their Ideas.—These were the followers of Aristotle, and were so called, because they were wont to dispute whilst walking up and down in the Lyceum at Athens. Aristotle seldom or never uses the word *idea* except in refuting Plato's notions about ideas. He thought that matter might exist without form, but that forms cannot exist without matter. But at the same time he taught, that there can be no sensation, no imagination, nor intellection or act of understanding, without images or forms, phantasms, or species in the mind; and that things sensible are perceived by sensible species, things of memory and imagination by phantasms, and things of intellection or intelligible things by intelligible species. So that every immediate object, whether of sense, of memory, of imagination, or of reasoning, must be some phantasm or species in the mind itself. His followers taught more explicitly that these sensible and intelligible species are sent forth by the objects, and make their impressions upon the passive intellect; and that the active intellect perceives them in the passive intellect.

² The terms *species* and *phantasm* both denote appearance, image, or representation to the mind, the former being Latin and the latter Greek.

e/ pure *intellection*. When the ^eare objects of memory and of imagination, they get the name of *phantasms*. When, by further refinement, and being stripped of their particularities, they become objects of *science*, they are called *intelligible species*. So that every immediate object, whether of sense, of memory, of imagination, or of reasoning, must be some phantasm or species in the mind itself.

The followers of Aristotle, especially the schoolmen, made great additions to this theory, which the author himself mentions very briefly, and with an appearance of reserve. They entered into large disquisitions with regard to the sensible species, what kind of things they are; how they are sent forth by the object, and enter by the organs of the senses; how they are preserved and refined by various agents, called internal senses; concerning the number and offices of which they had many controversies. But we shall not enter into a detail of these matters.

n/ XXV. *Modern Philosophers have taken their Theory of Ideas from Aristotle.*¹—The reason of giving this brief account of the theory of the Peripatetics, with regard to the immediate objects of our thoughts, is, because the doctrine of modern philosophers concerning ideas is built upon

¹ LOCKE and GASSENDI (1592-1655).—Are we to infer from this section that both Locke and Gassendi were Peripatetics? "Ideas," says Locke, "are nothing but the immediate objects of the mind in thinking." "That is the term (ideas) which I think serves best to stand for whatsoever is the object of the understanding when a man thinks. I have used it to express whatever is meant by *phantasm*, *notion*, *species*, or whatever it is that the mind can be employed about in thinking."

it. Mr. Locke, who uses this word so very frequently, tells us, that he means the same thing by it, as is commonly meant by *species* or *phantasm*. Gassendi, from whom Locke borrowed more than from any other author, says the same. The words *species* and *phantasm*; are terms of art in the Peripatetic system, and the meaning of them is to be learned from it.

XXVI. *Theories of Aristotle, Democritus, and Epicurus*.¹
 —The theory of Democritus and Epicurus, on this subject, was not very unlike to that of the Peripatetics. They held, that all bodies continually send forth *slender films* or *spectres* from their surface, of such extreme subtility, that they easily penetrate our gross bodies, or enter by the organs of sense, and stamp their image upon the mind. The sensible species of Aristotle were mere forms *without* the matter. The spectres of Epicurus were composed of a *very subtle matter*. u/

Modern philosophers, as well as the Peripatetics and Epicureans of old, have conceived, that external objects cannot be the immediate objects of our thought; that there must be some image of them in the mind itself, in which, as

If by this, says Hamilton, it be meant that the terms of species and phantasm, as occasionally employed by Gassendi and Locke, are used by them in the common meaning attached to them in the Schools, Reid is wrong. Gassendi, no more than Des Cartes, in adopting these terms of the Peripatetics, adopted them in their Peripatetic signification. Both of these philosophers are explicit in declaring the contrary; and what these terms as employed by them denote, they have clearly stated. Locke is less precise.

1 For Notes to Section xxvi. see Page 38

in a mirror, they are seen.² And the name *idea*, in the philosophical sense of it, is given to those internal and immediate objects of our thoughts. The external thing is the remote or mediate object; but the *idea*, or image of that object in the mind, is the immediate object,³ without which we could have no perception, no remembrance, no conception of the mediate object.

NOTES TO SECTION XXVI.

¹ The theory of DEMOCRITUS (460-357 B.C.) and EPICURUS (342-270 B.C.)—The Epicurian doctrine, as explained by Lucretius, though widely different from the Peripatetic in many things, yet is almost the same in the following particular. He affirms that slender films or ghosts—*tenuia rerum simulacra*—are still going off from all things, and flying about; and that these, being extremely subtle, easily penetrate our gross bodies, or enter by the organs of sense, and, striking upon the mind cause thought and imagination. The sensible species of Aristotle were forms without matter—*species sine materie*—but the *εἶδη*, vel species of the latter Peripatetics greatly perplexed their advocates, to say how they were separable from a subject, and whether they were material, immaterial, or somehow intermediate between body and spirit, whilst the *ἀπορροῖαι*, emanations, *εἶδωλα*, spectres, *τυποί*, moulds or types of Democritus and Epicurus were admittedly substantive and corporeal.

² Modern philosophers, including Malebranche, as well as the Peripatetics and Epicureans, thought that external objects cannot be the immediate objects of our thinking; that there must be some image of them in the mind by which they are discerned. And the name *idea* or *image* in its philosophical sense is bestowed upon those internal and immediate objects of our thoughts; but Malebranche thought that those ideas by which we perceive an external world were the ideas of the Deity Himself. And the obvious consequence of his system is, that there is no evidence of the existence of a material world; for the divine ideas,

which are the objects immediately perceived, were the same before the world was created. He therefore rests the existence of matter upon the authority of revelation.

³ Mediate and Immediate.—These terms as employed by Reid are said to be ambiguous. The external thing, he says, is the remote or mediate object ; but the idea, or image of that object in the mind, is the immediate object, and without which we could have no perception, no remembrance, and no conception of the immediate object.

Hamilton thus defines these terms and makes the following restrictions upon Reid's employment of them :—The correlative terms, Immediate and Mediate, as attributes of knowledge and its modifications, are employed in more than a single relation. In order, therefore, to obviate misapprehension, it is necessary, in the first place, to determine in what signification it is that we are at present to employ them.

In approaching an individual thing, either itself through sense or its representation in the phantasy, we have, in a certain sort, an absolute or irrespective cognition, which is justly denominated *immediate*, by contrast to the more relative and *mediate* knowledge which, subsequently, we compass of the same object, when, by a comparative act of the understanding we refer it to a class, that is, think or recognise it by relation to other things, under a certain notion or general term. But with this distinction we have nothing now to do. The discrimination of immediate and mediate knowledge, with which we are at present concerned, lies within and subdivides what constitutes, in the foregoing division, the branch of immediate cognition : for we are only here to deal with the knowledge of individual objects absolutely considered, and not viewed in relation to aught but themselves.

This distinction of immediate and mediate cognition it is of the highest importance to establish ; for it is one without which the whole philosophy of knowledge must remain involved in ambiguities. The want of a preliminary determination of the various, and even opposite meanings of which these terms are susceptible—a selection of the one

proper meaning, and a rigorous adherence to the meaning thus preferred, is the cause of doubt and confusion. But, in particular, the doctrine of Natural Realism cannot, without this distinction, be properly understood, developed, and discriminated. The following is an articulate development of this important distinction :—

(1) A thing is known immediately or proximately, when we cognise it in itself ; mediately or remotely, when we cognise it in or through something numerically different from itself. Immediate cognition, thus the knowledge of a thing in itself, involves the fact of its existence ; mediate cognition, thus the knowledge of a thing in or through something not itself, involves only the possibility of its existence.

(2) The immediate cognition, in as much as the thing known is itself presented to observation, may be called a presentative ; and in as much as the thing presented is, as it were, viewed by the mind face to face, may be called an intuitive cognition. A mediate cognition, in as much as the thing known is held up or mirrored to the mind in a vicarious representation, may be called a representative cognition.

(3) A thing known is called an object of knowledge.

(4) In a representative or immediate cognition there is one sole object ; the thing (immediately) known and the thing existing being one and the same. In a representative or mediate cognition there may be discriminated two objects ; the thing (immediately) known, and the thing existing being numerically different.

(5) A thing known in itself is the (sole) presentative or intuitive object of knowledge, or the (sole) object of a presentative or intuitive knowledge. A thing known in or through something else is the primary, mediate, real, existent, or represented object of mediate knowledge—*objectum quod* ; and a thing through which something else is known is the secondary, immediate, proximate, ideal, vicarious, or representative object of (mediate) knowledge—*objectum quo*,

or per quod. The former may likewise be styled *objectum entitativum*, or "objective-object."

The preceding distinction is one which, for the Natural Realist, it is necessary to establish, in order to discriminate his own peculiar doctrine of perception from those of the Idealists, Cosmothetic and Absolute, in their various discriminations. This, however, Reid unfortunately did not do; and the consequence has been the following imperfections and inaccuracies:—

I. In the first place he has, at least in words, abolished the distinction of presentative and representative cognition.

(1) He asserts, in general, that every object of thought must be an immediate object.

(2) He affirms, in particular, not only of the faculties whose objects are, but of those whose objects are not, actually present to the mind—that they are all and each of them immediate knowledges.

II. In the second place, Reid maintains that in our cognitions there must be an object (real or imaginary) distinct from the operation of the mind conversant about it; for the act is one thing and the object of the act is another.

This is erroneous—at least it is erroneously expressed. Take an imaginary object, and Reid's own instance—a centaur. The sole object, says Herche, of conception (imagination) is an animal which I believe never existed. It never existed, that is, never really, never in nature, never externally, existed. But it is an object of imagination. It is not therefore a mere non-existence; for if it had no kind of existence it could not possibly be the positive object of any kind of thought. For were it an absolute nothing, it could have no qualities (non-entis nulla sunt attributa, there are no attributes of a non-entity); but the object of which we are conscious, as a centaur, has qualities—qualities which constitute it a determinate something, and distinguish it from every other entity whatsoever. We must, therefore, per force, allow it some sort of imaginary, ideal, representative, or (in the older meaning of the term) objective existence in the mind. Now this existence can only be one or other of two sorts;

for such object in the mind, either is, or is not, a mode of mind. Of these alternatives the latter cannot be supposed; for this would be an affirmation of the crudest kind of non-egotistical representation—the very hypothesis against which Reid so strenuously contends. The former alternative remains—that it is a mode of the imagination, of the imagining mind; that it is, in fact, the plastic act of imagination considered as representing to itself a certain possible form, namely, a centaur. But then Reid's assertion, that there is always an object distinct from the operation of the mind conversant about it, the act being one thing, the object of the act another, must be surrendered; for the object and the act are here only one and the same thing in two several relations. Reid's error consists in mistaking a logical for a metaphysical difference—a distinction of entity. Or is the error only from the vagueness and ambiguity of expression?

(I must here say in favour of Reid, that he would not have gain-said that this *ens rationis*, this mere fabrication of the mind itself of a winged horse, this chimera or creature of the imagination, was only a capable act of the mind from previous knowledge of a horse and wings, it being constructed out of elements which had been previously given in presentation).

Biel has the following passage in which Hamilton says that Reid's difficulty is solved:—

Quod additur de Chimæra; patet quod aliter chimæra dicitur figmentum, et aliter cognitio rei possibilis. Verum conceptus chimærae, id est actus cognoscendi correspondens huic voci 'chimærae' est vera qualitas in mente; tamen illud quod significat nihil est. "Which thing is added concerning a Chimera. It is clear that a chimera is sometimes said to be a fabrication, and sometimes the cognition of a possible object. But the conception of a chimera, that is, an act of conceiving corresponding to this word 'chimera', is a true quality in the mind, yet it is that which signifies nothing."

III. In the third place, to this head we may refer Reid's

inaccuracy in regard to the precise object of perception. This object is not, as he seems frequently to assert, any distant reality ; for we are percipient of nothing but what is in proximate contact, in immediate relation with our organs of sense. Distant realities we reach not by perception, but by a subsequent process of inference founded thereon : and so far, as he somewhere says, from all men who look upon the sun, perceiving the same object, in reality, every individual in this instance, perceives a different object, nay, a different object in each several eye. But the doctrine of Natural Realism requires no such untenable assumption for its basis.

N.B.—The distinction of proximate and remote object is sometimes applied to perception in a different manner. Thus colour, (the white of the wall for instance) is said to be the proximate object of vision, because it is seen immediately ; the coloured thing (the wall itself for instance) is said to be the remote object of vision, because it is seen only through the mediation of the colour. This, however, is inaccurate, for the wall, that in which the colour inheres, however mediately known, is never mediately seen. It is not indeed an object at all ; it is only the subject of such an object, and is reached by a cognitive process, different from the mere perceptive.

XXVII. Popular and Philosophical meanings of the word "Idea."—When, therefore, in common language, we

1 Idea then has a three-fold popular meaning and one philosophical ; but the history of this Greek word seems altogether unknown. It may denote merely a notion—a simple thought in contradiction to a composite thought or judgment. In this sense, ideal will mean what exists subjectively in our thoughts, contrasted with real—that is, what exists objectively in the universe. But this is not the sense in which the words *idea* and *ideal* are employed by Reid, Stewart, and the Scottish School in general. With them the Ideal Theory means the theory of cognition brought to bear through the hypothesis of Ideas, in one or more of the faculties of knowledge ; and *idea* signifies a mediate or representative object, through which we take cognisance of a mode of matter or mind, which, though really existing, is not, as existing, that is, known by us in itself im-

speak of having an idea of anything, we mean no more by that expression, but thinking of it. The vulgar allow, that this expression implies a mind that thinks, an act of that mind, which we call thinking, and an object about which we think. But, besides these three, the philosopher conceives that there is a fourth, to wit, the *idea*, which is the immediate object. The idea is in the mind itself, and can have no existence but in a mind that thinks; but the remote or mediate object may be something external, as the sun or moon; it may be something past or future; it may even be something, which never existed. This is the philosophical meaning of the word *idea*; and we may observe, that this meaning of that word is built upon a philosophical opinion; for, if philosophers had not believed that there are such immediate objects of all our thoughts in the mind, they would never have used the word *idea* to express them.

mediately or presentatively. Previous to the time of Descartes, it was exclusively used in its Platonic meaning. And this was that the idea was not an object of perception, and was not derived from without. Goclenius says: *Ideæ sumuntur nonnunquam pro conceptionibus seu notionibus animi communibus*—Ideas are sometimes taken for the conceptions or common notions of the mind. And he quotes Theognis as using the word in the sense of species animo concepta, "an image conceived in the mind," but it seems rather used in the ordinary sense of visible appearance—

πολλὰκι γὰρ γνωμὴν ἐξαπατῶς ἰδεαί.

For Ideas or appearances often deceive our thoughts.

Used by Plato to denote the real forms of the intelligible world, in lofty contrast to the unreal images of the sensible, it was lowered by Descartes, who extended it to the objects of our consciousness in general. It was afterwards still more deeply degraded from its high original. And at last Ideologie, which deduces our knowledge from the intellect, has in France become the name peculiarly distinctive of that philosophy of mind, which exclusively derives our knowledge from the senses. *Χαίρετεωσαν ἰδεαί*, says Aristotle, "farewell to ideas"; and since then they have wandered, like fallen spirits, up and down the earth, seeking rest and finding none.

I shall only add on this article, that, although I may have occasion to use the word *idea* in this philosophical sense in explaining the opinions of others, I shall have no occasion to use it in expressing my own, because I believe *ideas*, taken in this sense, to be a mere fiction of philosophers. And, in the popular meaning of the word, there is the less occasion to use it, because the English words, *thought*, *notion*, *apprehension*, answer the purpose as well as the Greek word *idea*; with this advantage, that they are less ambiguous. There is, indeed, a meaning of the word *idea*, which I think most agreeable to its use in ancient philosophy, and which I would willingly adopt, if use, the arbiter of language, did permit. But this will come to be explained afterwards.

XXVIII. *Ideas different from Impressions.*¹—11. The word *impression* is used by Mr. Hume, in speaking of the operations of the mind, almost as often as the word *idea* is by Mr. Locke. What the latter calls ideas, the former divides into two classes; one of which he calls impressions,

¹ Impressions and ideas with Hume are the same—the former being only more lively and forcible than the latter. This is a great and serious error. Ideas are images formed in the mind, whilst, to speak vaguely, if not philosophically, impressions are effects or images produced or fixed in the passive mind by the operation of some external cause. If we suppose an active being to produce any change in itself by its own active power, this is never called an impression, but an idea. It is the act of the being itself, and not an impression upon it. Hence, if impressions are ideas, then we must suppose that the mind does not at all act in the production of these effects. Can we not easily imagine an active being to be swayed or governed by some external cause, without altogether destroying its own activity? And if no impression can be made on an immaterial being, by a material cause, yet can we say the same regarding an immaterial agency? To say such would be to deny the agency of the Holy Spirit upon our minds.

the other ideas. I shall make some observations upon Mr. Hume's explication of *that* word, and then consider the proper meaning of it in the English language.

"We may divide (says Mr. Hume, *Essays*, 8vo. edit. vol. 2, page 18) all the perceptions of the human mind into two classes or species, which are distinguished by their different degrees of force and vivacity. The less lively and forcible are commonly denominated thoughts or ideas. The other species want a name in our language, and in most others; let us therefore use a little freedom, and call them impressions. By the term *impressions*, then, I mean all our *more lively perceptions*, when we hear, or see, or feel, or love, or hate, or desire, or will. But ideas are the *less lively perceptions*, of which we are conscious, when we reflect on any of those sensations or movements above mentioned."

XXIX. *Defect of Hume's division.*—This is the explication Mr. Hume hath given in his *Essays* of the term *impressions*, when applied to the mind; and his explication of it, in his *Treatise of Human Nature*, is to the same purpose.

Disputes about words belong rather to grammarians than to philosophers; but philosophers ought not to escape censure when they corrupt a language, by using words in a way which the purity of the language will not admit. I find fault with Mr. Hume's phraseology in the words I have quoted.

First, because he gives the name of *perceptions* to every operation of the mind.¹ Love is a perception; hatred is a per-

¹ Hamilton says that Hume did not introduce the word perception to every operation of the mind; but affirms that it was so used by Des Cartes and many others; and, as desires, feelings, etc. exist only as known, so are they all, in a

ception; desire is a perception; will is a perception; and, by the same rule, a doubt, a question, or a command, is a perception. This is an intolerable abuse of language, which no philosopher has authority to introduce.

Secondly, when Mr. Hume says, *that we may divide all the perceptions of the human mind into two classes or species, which are distinguished by their degrees of force and vivacity*, the manner of expression is loose and unphilosophical. To differ in *species* is one thing; but to differ in *degree* is another.¹ Things, which differ in degree only, must be of the same species. It is a maxim of common sense, admitted by all men, that *greater* and *less* do not make a change of species. The same man may differ in the degree of his force and vivacity, in the morning and at night; in health and in sickness; but this is so far from making him a different species, that it does not so much as make him a different individual. To say, therefore, that two different classes, or species of perceptions, are distinguished by the degrees of their force and vivacity, is to confound a difference of *degree* with a difference of *species*, which every man of understanding knows how to distinguish.

certain sense, cognitions, that is perceptions. But can we properly say, I perceive love, hatred, etc.? No. The proper word here is *feel*; but this leads us to the doctrine of sensation.

1 *Species and Degree*. Things, which differ in degree only, are of the same species. Plus et moins non changent une species. And to say that two different classes or species of perceptions are distinguished by the degrees of their force and vivacity is to confound a difference of degree with a difference of species.

With respect to this objection, Hamilton says, that it reaches far more extensively than to Hume—in fact, to all that do not allow an immediate knowledge or consciousness of the non-ego or object in perception. Where are the philosophers who do? Aristotle and Hobbes call imagination a dying sense; and Des Cartes is equally explicit.

Thirdly, we may observe, that this author, having given the general name of *perception* to all the operations of the mind, and distinguished them into two classes or species, which differ only in degree of force and vivacity, tells us, that he gives the name of impressions to all our more lively perceptions ; to wit, when we hear, or see, or feel, or love, or hate, or desire, or will. There is great confusion in this account of the meaning of the word *impression*. When I see, this is an *impression*.¹ But why has not the author told us, whether he gives the name of *impression* to the object seen, or to that act of my mind by which I see it? When I see the full moon, the full moon is one thing, my

1 "When I see," this is an impression according to Hume. But the object, which I see, is one thing, and my perceiving it is another. But by Hume these are not two things, but one and the same thing. However, Hamilton says that this objection is easily answered. The thing (Hume would say), as unknown, as unperceived, as beyond the sphere of my consciousness, is to me as zero or naught ; to that, therefore, I could not refer. As perceived, as known, it must be within the sphere of my consciousness ; but, as philosophers concur in maintaining that I can only be conscious of my mind and its contents, the object, as perceived, must be either a mode of my mind, or something contained within it, and to that internal object, as perceived, I give the name of impression. (But this is called an idea, in the philosophical sense of it, Sect. xxvi.) Nor can the act of perception (he would add) be really distinguished from the object perceived. Both are only relatives, mutually constituent of the same divisible relation of knowledge ; and to that relation and these relatives I give the name of impression, precisely as, in different points of view, the term perception is applied to the mind perceiving, to the object perceived, and to the act of which these are the inseparable constituents. (But this is making no distinction between the operations of the mind and their objects, Sect. xvii., and this confusion is characteristic of Hume's system of philosophy, Sect. xviii.) It does not follow that the mere perception of an object produces an impression, taking that word in its most lax meaning : for a primrose by the river's brink, might be to Hume a primrose and nothing more. And this according to him is an impression : but to the poet it is a world of beauty and purity. The monotonous double note of the cuckoo is heard with indifference, it may be, by Hume ; but to the poet it results in an imperishable ode of simplicity and sweetness.

perceiving it is another thing. Which of these two things does he call an impression? We are left to guess this: nor does all that this author writes about impressions clear this point. Every thing he says tends to darken it, and to lead us to think, that the full moon which I see, and my seeing it, are not two things, but one and the same thing.

The same observations may be applied to every other instance the author gives to illustrate the meaning of the word *impression*. "When we hear, when we feel, when we love, when we hate, when we desire, when we will"—all these are impressions according to Mr. Hume. In all these acts of the mind there must be an *object*, which is heard, or felt, or loved, or hated, or desired, or willed. Thus, for instance, I love my country.¹ This, says Mr. Hume, is an *impression*. But what is the *impression*? Is it my country, or the affection I bear to it? I ask the philosopher this question; but I find no answer to it. And when I read all that he has *written* on this subject, I find this word *impression* sometimes used to signify an *operation* of the mind, sometimes the *object* of the operation; but, for the most part, it is a vague and indetermined word that signifies both.

I know not whether it may be considered as an apology for such abuse of words, in an author who understood the language so well, and used it with so great propriety in writing on other subjects, that Mr. Hume's system, with regard to the mind, required a language of a different

¹ I love my country. This is not an impression. It is an operation of the mind. Even the abstract term, love of country, is not an impression; it may not be even the result of an impression; it may flow from a sense of duty.

structure from the common ; or, if expressed in plain English, would have been too shocking to the common sense of mankind. To give an instance or two of this : If a man receives a present on which he puts a high value ; if he sees and handles it, and puts it in his pocket, this, says Mr. Hume, is an *impression*. If the man only dreams he received such a present, this is an *idea*. Wherein lies the difference between this impression and this idea ; between the dream and the reality ? They are different classes or species, says Mr. Hume : so far all men will agree with him. But he adds, that they are distinguished only by different degrees of force and vivacity. Here he institutes a tenet of his own, in contradiction to the common sense of mankind. Common sense convinces every man, that a lively dream is no nearer to a reality than a faint one ; and that if a man should dream that he had all the wealth of Croesus, it would not put one farthing in his pocket. It is impossible to fabricate arguments against such undeniable principles without confounding the meaning of words.

In like manner, if a man would persuade me, that the moon which I see, and my seeing it, are not two things, but one and the same thing, he will answer his purpose less by arguing this point in plain English, than by confounding the two under one name, such as that of an *impression* ; for such is the power of words, that if we can be brought to the habit of calling two things that are connected, *by the same name*, we are the more easily led to believe them to be one and the same thing.

XXX. *Popular Acceptation of the word "Impression."*¹—

Let us next consider the proper meaning of the word *impression* in English, that we may see how far it is fit to express either the operations of the mind, or their objects.

When a figure is stamped upon a body by pressure, that figure is called an *impression*, as the impression of a seal on wax, of printing types, or of a copperplate, on paper. This seems now to be the literal sense of the word; the effect borrowing its name from the cause. But by *metaphor* or *analogy*, like most other words, its meaning is extended so as to signify any change produced in a body by the operation of some external cause. A blow of the hand makes no impression on a stone wall; but a battery of cannon may. The moon raises a tide in the ocean, but makes no impression on rivers and lakes.

When we speak of making an impression on the mind, the word is carried still further from its literal meaning; use, however, which is the arbiter of language, authorises this application of it. As when we say that admonition

1 *Impression*. This word denotes (1) literally, a figure or stamp, as of a seal on wax, or of types on paper—the effect receiving its name from the cause. (2) By metaphor or analogy it signifies any change caused in a body by some external agency—as a blow from the hand, as the tides in the sea by the influence of the moon. (3) By a still further departure from its literal meaning it is figuratively applied to the mind, as when we say of an oration that it made a great impression on its hearers. *Impression* in this figurative sense denotes a change of purpose or will, some resolution made, or habit relinquished, or some passion raised or assuaged. Such changes howsoever produced are called impressions in the mind: and, to say that an object, which I view with indifference, makes an impression on my mind is not all relevant or proper English. But how are impressions made upon the mind, if this expression is not altogether figurative and the mind immaterial? This is a most important question.

and reproof make little impression on those who are confirmed in bad habits. The same discourse delivered in one way, makes a strong impression on the hearers; delivered in another way, it makes no impression at all.

It may be observed, that in such examples, an impression made on the mind always implies some change of purpose or will; some new habit produced, or some former habit weakened; some passions raised or allayed. When such changes are produced by persuasion, example, or any external cause, we say that such causes make an impression upon the mind. But when things are seen or heard, or apprehended, without producing any passion or emotion, we say that they make no impression.

XXXI. *In any sense the word Impression is not properly applied to signify the operations of the mind or their objects.*¹—In the most extensive sense, an impression is a

1 If the word impression is equally inapplicable to the operations of the mind and their objects, what then is an impression and how is it produced? Is the expression only figurative, or is it, as Hume says, but a lively and forcible idea? It has been declared that to give the name of an impression (which in its most lax or extensive sense is a change produced in some passive object by the operation of an external cause) to any effect produced in the mind, is to suppose that the mind does not act at all in the production of that effect. And the word is equally improper when applied to external objects: for we cannot with propriety say that the sun, the earth, and the sea are impressions. They are the causes of impressions. But, says Reid, in *Essay II.*, Chap. iv., three false conclusions have been drawn from the impressions of external objects, which we will here enumerate.—

(1) That the impressions of external objects produce in us sensation, perception, remembrance, and all the other operations of which we are conscious. This foolish opinion, says Reid, could only take its rise from observing the constant connexion, which the Author of Nature hath established between certain impressions made upon our senses, and our perception of the objects by which the

change produced in some *passive* subject by the operation of an external cause. If we suppose an active being to produce any change in itself by its own active power, this is never impression is made; from which it was weakly inferred, that those impressions were the proper efficient causes of the corresponding perception.

(2) That in perception an impression is made upon the mind as well as upon the organ, nerves, and brain. Aristotle thought that the form or image of the object perceived enters by the organ of sense, and strikes upon the mind. Hume gives the name of impression to all our perceptions, sensations, and even the objects perceived. And Locke affirms that the ideas of external objects are produced in our minds by impulse, "that being the only way in which we can conceive bodies to operate."

But if we suppose the mind to be immaterial, of which we have strong proofs, we shall find it difficult to affix a meaning to *impressions made upon it*.

(3) And another conclusion drawn from the impressions made upon the brain in perception, which I conceive to have no solid foundation, though it has been generally adopted by philosophers, is, that by the impressions made on the brain, images are formed of the object perceived; and that the mind, being seated in the brain as its chamber of presence, immediately perceives those images only, and has no perception of the external object by them.

Reid thus sums up his observations with respect to the organs of perception and the impressions made upon our nerves and brain—granting that external objects do make some impression on the organs of sense, and by them on the nerves and brain.—

(1) It is a law of our nature, established by the will of the Supreme Being, that we perceive no external object but by means of the organs given us for that purpose. But these organs do not perceive. The eye is the organ of sight, but it sees not any more than a telescope does.

(2) It is likewise a law of our nature, that we perceive not external objects, unless certain impressions be made by the object upon the organ, and by means of the organ upon the nerves and brain. But of the nature of those impressions we are perfectly ignorant; and though they are conjoined with perception by the will of our Maker, yet it does not appear that they have any necessary connection with it in their own nature, *far less that they can be the proper efficient cause of it*. We perceive, because God has given us the power of perceiving, and not because we have impressions from objects. We perceive nothing without those impressions, because our Maker has limited and circumscribed our powers of perception, by such laws of nature as to His wisdom seemed meet, and such as suited our rank in the Creation.

It appears, therefore, that this phrase of the mind's having impressions made

called an impression. It is the act or operation of the being itself, not an impression upon it. From this it appears, that to give the name of an impression to any effect produced in the mind, is to suppose that the mind does not act at all in the production of that effect. If seeing, hearing, desiring, willing, be operations of the mind, they cannot be impressions. If they be impressions, they cannot be operations of the mind. In the structure of all languages, they are considered as acts or operations of the mind itself, and the names given them imply this. To call them impressions, therefore, is to trespass against the structure, not of a particular language only, but of all languages.

If the word *impression* be an *improper word* to signify the *operations* of the mind, it is at least as improper to signify their *objects*; for would any man be thought to speak with propriety, who should say that the sun is an impression, that the earth and the sea are impressions?

XXXII. *All languages not equally adapted to the expression of true or false opinions.*—It is commonly believed, and taken for granted, that every language, if it be sufficiently copious in words, is equally fit to express all opinions, whether they be true or false. I apprehend however, that there is an exception to this general rule which deserves our notice. There are certain common opinions

upon it by corporeal objects in perception, is either a phrase without any distinct meaning, and contrary to the propriety of the English language, or it is grounded upon a hypothesis, which is destitute of proof. On that account, though we grant that in perception there is an impression made upon the organ of sense, and upon the nerves and brain, yet we do not admit that the object makes any impression upon the mind.

of mankind, upon which the structure and grammar of all languages are founded. While these opinions are common to all men, there will be a great similarity in all languages that are to be found on the face of the earth. Such a similarity there really is ; for we find in all languages the same parts of speech, the distinction of nouns and verbs, the distinction of adjectives and substantives, and of verbs into active and passive. In verbs we find like tenses, moods, persons, and numbers. There are general rules of grammar, which are the same in all languages. This similarity of structure in all languages shows a uniformity among men in those opinions upon which the structure of all language is founded.

If, for instance, we should suppose that there was a nation, who believed that the things, which we call attributes, might exist without a subject, there would be in their language no distinction between adjectives and substantives, nor would it be a rule with them that an adjective has no meaning, unless when joined to a substantive. If there was any nation, who did not distinguish between acting and being acted upon, there would in their language be no distinction between active and passive verbs, nor would it be a rule with them that the active verb must have an agent in the nominative case ; but that, in the passive verb, the agent must be in an oblique case.

XXXIII. *Hume departs from the common signification of words.*—The structure of all languages is grounded upon common notions, which Mr. Hume's philosophy opposes and endeavours to overturn. This no doubt led him to

warp the common language into a conformity with his principles ; but we ought not to imitate him in this, until we are satisfied that his principles are built on a solid foundation.

XXXIV. 12. *Sensation distinct from all other acts of the mind.*¹—*Sensation* is a name given by philosophers to an act of the mind, which may be distinguished from all others by this, that it hath no object distinct from the act itself. Pain of every kind is an uneasy sensation. When I am pained, I cannot say that the pain I feel is one thing, and that my feeling it is another thing. They are one and the same thing, and cannot be disjointed, even in imagination. Pain when it is not felt has no existence. It can be neither greater nor less in degree or duration, nor anything else in kind, than it is felt to be. It cannot exist by itself, nor in any subject, but in a sentient being. No quality of an inanimate insentient being can have the least resemblance to it.

What we have said of pain may be applied to every other sensation. Some of them are agreeable, others uneasy, in various degrees. These being objects of desire or aversion, have some attention given to them ; but many are indifferent, and so little attended to, that they have no name in any language.

¹ *Sensation.* This word is in Latin, *sensatio* and *sensus* ; in French, *sensation* and *sentiment* ; in Italian, *sensazione* ; in Greek, *αἰσθησις* and *παθος* ; and in German, *sensation*, *eindruck*, *empfindung*, although this last word, like *αἰσθησις*, is applied to perception, but some contending that *vorstellung* and *wahrnehmung* are the proper terms for perception.

XXXV. *Source of error as to the operations of the mind.*—Most operations of the mind, that have names in common language, are complex in their nature, and made

Sensation is, like perception, conception, and imagination, variously applied for (1), a faculty; (2), its act; and (3), its object. There are two principal meanings, says Hamilton, in which the term sensation has been employed.—

(1) Like *αἴσθησις*, it was long and generally used to comprehend the process of sensitive apprehension, both in its subjective and objective relations.

(2) As opposed to idea, perception, etc., it was limited first in the Cartesian school, and thereafter in that of Reid, to the subjective phases of our sensitive cognitions; that is, to our consciousness of the affections of our animated organism; or on the Neo-Platonic, Cartesian, and Leibnitzian hypotheses, to the mind corresponding to the unknown mutations of the body, but not caused by them. Under this restriction, sensation may, both in French and English, be employed to designate our corporeal or lower feelings, in opposition to sentiment, as a term for our higher feelings, that is, our intellectual and moral feelings.

But sensation, in the language of philosophers, has been generally employed to denote the whole process of sensitive cognition, including both perception proper and sensation proper; but on this distinction let us quote from Reid, Essay II., chap. xvi. Sect. I.—

When I smell a rose, there is in this operation both sensation and perception. The agreeable odour, which I feel, considered by itself, without any relation to any external object, is merely a sensation. It affects the mind in a certain way: and this affection of the mind may be conceived, without a thought of the rose, or any other object. This sensation can be nothing else than it is felt to be. Its very essence consists in being felt; there is no difference between the sensation and the feeling of it—they are one and the same thing. It is for this reason that we before observed that, in sensation, there is no object distinct from that act of the mind by which it is felt—and this holds true with regard to all sensations.

Let us next attend to the perception, which we have in smelling a rose. Perception has always an external object; and the object of my perception, in this case, is that quality in the rose, which I discern by the sense of smell. Observing that the agreeable sensation is raised when the rose is near, and ceases when it is removed, I am led, by my nature, to conclude some quality to be in the rose, which is the cause of this sensation. This quality in the rose is the object perceived: and that act of my mind by which I have the conviction and belief of this quality, is what, in this case, I call perception.

But it is here to be observed, that the sensation I feel, and the quality in the rose which I perceive, are both called by the same name. The smell of a rose is

up of various ingredients, or more simple acts; which, though conjoined in our constitution, must be disjoined by abstraction, in order to our having a distinct and scientific notion of the complex operation. In such operations, sensation for the most part makes an ingredient. Those, who do not attend to the complex nature of such operations, are apt to resolve them into some one or other of the simple acts of which they are compounded, overlooking the others: and from this cause many disputes have been raised, and many errors have been occasioned with regard to the nature of such operations.

XXXVI. *Another occasion of error as to our sensations.*—The perception of external objects is accompanied with some sensation corresponding to the object perceived, and such sensations have, in many cases, in all languages, the same name with the *external object*, which they always accompany. The difficulty of joining, by abstraction, things

the name given to both: so that the name hath two meanings; and the distinguishing of its different meanings removes all perplexity, and enables us to give clear and distinct answers to questions, about which philosophers have held much dispute.

With regard to the second of the above paragraphs, Hamilton remarks that it appears to be an explicit disavowal of the doctrine of an intuitive or immediate perception. If, from a certain sensible feeling, or sensation (which is itself cognitive of no object), I am only determined by my nature to conclude that there is some external quality, which is the cause of this sensation, and if this quality, thus only known as an inference from its effect, be the object perceived, then is perception not an act immediately cognitive of any existing object, and the object perceived is, in fact, except as an imaginary something, unknown.

And, in reference to the third paragraph, Hamilton further says, that the distinction of subjective and objective qualities here vaguely attempted, had been precisely accomplished by Aristotle, in his discrimination of *παθητικά ποιότητες*, *qualitates patibiles*, "sensitive qualities or properties," and *παθη, πασiones*, "affections or feelings."

thus constantly conjoined in the course of nature, and things, which have one and the same name in all languages, has likewise been frequently *an occasion of errors* in the philosophy of the mind. To avoid such errors, nothing is of more importance than to have a distinct notion of that simple act of the mind, which we call *sensation*, and which, we have endeavoured to describe. By this means we shall find it more easy (1) to distinguish it from every *external object* that it accompanies, and (2) from every other *act of the mind* that may be conjoined with it. For this purpose, it is likewise of importance, that the name of *sensation* should, in philosophical writings, be appropriated to signify this simple act of the mind, without including any thing in its signification, or being applied to other purposes.

I shall add an observation concerning the word *feeling*.¹

1 *Feeling or Sense*. This word is employed both in a wide and strict application.

Under the first it has two applications (Latin, *Sensus*; French, *Sens*; Italian, *Sensa*; German, *Sinn*; and Greek, $\nu\omicron\upsilon\sigma$): (1) a psychological, as a common term for Intelligence: (2) a logical as a synonyme for meaning.

Under the latter, *Feeling or Sense* is employed ambiguously (1) for the faculty of sensitive apprehension: (2) for its act: and (3) for its Organ.

In this relation, *Sense or Feeling* has been distinguished by Reid into two meanings, but I think it might justly be endowed with three. (1) *External*, namely, the perception of objects by the sense of touch—in which the act of the mind and the objects felt are easily distinguished. (2) *Internal*, being the same as sensation; and in this meaning it has no object, the feeling and the thing felt being one and the same. (3) *Intellectual and Moral feeling*, corresponding to the word sentiment.

Reid thus distinguishes Sensations from Feelings in Essay II. chap. xvi. sect. vii. As to the Sensations and Feelings, that are agreeable or disagreeable, they differ much, not only in degree, but in kind and dignity. Some belong to the animal part of our nature, and are common to us with the brutes. Others belong to the rational and moral part. The first are more properly called *sensations*, the

This word has two meanings. *First*, it signifies the perceptions we have of external objects by the sense of touch. When we speak of feeling a body to be hard or soft, rough or smooth, hot or cold ; to feel these things is to perceive them by touch. They are external things, and that act of the mind by which we feel them is easily distinguished from the objects felt. *Secondly*, the word *feeling* is used to signify the same thing as *sensation*, which we have just now explained ; and, in this sense, it has no object ; the feeling and the thing felt are one and the same.

Perhaps betwixt feeling, taken in this latter sense, and sensation, there may be this small difference, that sensation is most commonly used to signify those feelings, which we have by our external senses and bodily appetites, and all our bodily pains and pleasures. But there are *feelings* of a nobler nature, accompanying our affections, our moral judgments, and our determinations in matters of taste (æsthetics), to which the word *sensation* is less properly applied.

XXXVII. *Attention to the meanings of words necessary.*—

I have premised these observations on the meaning of certain words, that frequently occur in treating of this subject, for two reasons, *first*, that I may be the better understood when I use them ; and, *secondly*, that those, who would make any progress in this branch of science,

last *feelings*. The French word *Sentiment*, the German *Gefuehl*, and the English *Feeling* are common to both. The intention of Nature in them is for the most part obvious, and well deserving our notice. It has been beautifully illustrated by a very elegant French writer, Levesque de Pouilly, in his "*Theorie des Sentiments Agreeables*," "*The Theory of Agreeable Feelings*."

But since the days of Reid, some French philosophers have attempted the distinction of *Sensation* and *Sentiment*.

may accustom themselves to attend very carefully to the meaning of words, that are used in it. They may be assured of this, that the *ambiguity of words*,¹ and the vague and improper application of them, have thrown more darkness upon this subject than the subtilty and intricacy of things have done.

When we use common words, we ought to use them in the sense in which they are most commonly used by the best and purest writers in the language; and, when we have to enlarge or restrict the meaning of a common word, or to give it more precision than it has in common language, the reader ought to be warned of this; for otherwise we shall impose upon ourselves and upon him.

A very respectable writer has given us a good example of this kind, by explaining, in an appendix to his *Elements of Criticism*, the terms he has had occasion to use. In that appendix, most of the words are explained on which I have been making observations. And the explication, which I have given of them, I think, agrees, for the most part, with his.

Other words, that need explication, shall be explained as they occur.

¹ The greatest part of the questions and controversies that perplex mankind, depend on the doubtful and uncertain use of Words.—*Locke*.

QUESTIONS FOR SELF-EXAMINATION.

Name a great impediment to the advancement of knowledge.

What are the causes of the steady progress of mathematics?

What are the foundations of all science?

What are technical terms?

What words do, and what do not, admit of logical definition?

How are individuals distinguished?

Why cannot every species be defined?

What was a great defect in Aristotle's philosophy with respect to definition?

Why must psychological words be used frequently according to their vulgar meanings?

What are the characteristics of the mind according to the natural judgment of man?

Explain and distinguish these terms—faculty, habits, capacity, perception, conception, consciousness, and memory.

What are the original and analogical significations of perception?

What use does Hume make of this term?

How doth conception differ from all other mental operations?

How is perception distinguished from conception?

Explain idea in its twofold sense.

Name the three first principles of the Pythagoreans.

How did the latter Platonists differ from the elder?

Explain how Malebranche differed from the Platonists.

How do the Platonic and Aristotelian systems differ?

Describe the Peripatetic theory of Ideas.

Explain the theory of Epicurus.

How do impressions and ideas differ, and what are the faults of this distinction?

What is the literal meaning of impression, and also its most extensive sense?

Explain how the word impression can not be applied correctly to the operations or the objects of the mind?

How can sensation be distinguished from all other acts of the mind?

Describe the difference between Sensations and Feelings.

CHAPTER II.

PRINCIPLES TAKEN FOR GRANTED.

I. As there are words common to philosophers and to the vulgar, which need no explication, so there are principles common to both, which need no proof, and which do not admit of direct proof.

II. One, who applies himself to any branch of science must have come to years of understanding, and consequently must have exercised his reason and the other powers of his

mind in various ways. He must have formed various opinions and principles, by which he conducts himself in the affairs of life. Of those principles, some are common to all men, being evident in themselves, and so necessary in the conduct of life, that a man cannot live and act according to the rules of common prudence without them.

III. All men, that have common understanding, agree in such principles, and consider a man as lunatic, or destitute of common sense,¹ who denies or calls them in question. Thus, if any man were found of so strange a turn as not to believe his own eyes; to put no trust in his senses, nor have the least regard to their testimony, would any man think it worth while to reason gravely with such a person, and, by argument, to convince him of his error? Surely no

1. Common Sense. Fenelon, the famous Archbishop of Cambray, thus writes de Sensu Communi, "Concerning Common Sense":—

"But what is Common Sense? Are they not the first or spontaneous notions, that all men equally have of the same things? This Common Sense, which is always and in all places the same, anticipates all inquiry, renders the examination of certain questions even ridiculous, makes a man incapable of doubting every effort which he can place in a true doubt (that is, which puts it out of a man's power to doubt)—this Common Sense, which belongs to every man—this Sense, which waits only to be consulted, which shows itself at the first glance, and discovers immediately the evidence or the obscurity of a question—is not this Sense, I say, the same as that which I call my ideas? These attributes of Common Sense are then those ideas or general notions, which I can neither gainsay nor examine, but, according to which, on the contrary, I decide and examine everything; inasmuch, that I laugh instead of replying, every time that anything is proposed to me which is clearly opposed to what these immutable ideas represent. This principle is constant, and it could only be in its application that it could become faulty, that is to say, that it necessarily and unhesitatingly follows all my clear ideas, but it is very needful to take care so as never to take a clear idea for that, which has in it something obscure. So I will follow this rule exactly in the things on which I am about to think."—*De l'Existence de Dieu, Partie II., Chap. 2.*

wise man would. For before men can reason together, they must agree in first principles ; and it is impossible to reason with a man, who has no principles in common with you.

IV. *Fundamental principles of reasoning and knowledge.*¹
—There are, therefore, common principles which are the foundation of all reasoning and of all science. Such

1. Fundamental principles of reasoning and knowledge. Buffier, another French writer, in his treatise on First Truths, gives a statement and exposition of their three essential characteristics, which may be useful.

"(1) The first essential of these characteristics is, that they be so clear, that when we undertake to prove them, or combat them, we can only do so by propositions, which manifestly are neither clearer nor more certain.

"(2) To be so universally received among men at all times, in all places, and by all kinds of minds, that those who attack them, are found in the human race to be evidently less than one in a hundred, or even one in a thousand.

"(3) To be so strongly impressed in us, that we conform our conduct to them in spite of the affected nicety of those who imagine contrary opinions, and who themselves act conformably, not to their own supposed opinions, but to the first truths universally received."

Hamilton says: If we except Lord Herbert's treatise *De Veritate* "Concerning Truth," Buffier's Works—*Traite des Premieres Verites* and *Elements de Metaphysique*—exhibit the first regular and comprehensive attempt to found philosophy on certain primary truths, given in certain primary sentiments or feelings. These feelings and the truths of which they are the sources, he distinguishes into two kinds.

(1) The first source of first principles he holds to be Internal Feeling (sentiment intime), or the self-consciousness of our own existence, and of what passes in our own minds. By this he designates our conviction of the facts of consciousness in themselves, as merely present and ideal phenomena. But these phenomena testify also to the reality of what lies beyond themselves ; and to our instinctive belief in the truth of this testimony, he gives, by perhaps an arbitrary limitation of words, the name of *common natural feeling* (sentiment commun de la nature), or employing a more familiar expression, *Common Sense* (*sens commun*).

(2) And *Common Sense*, as the second source of first principles he defines thus :—"J'entens donc ici par le sens commun la disposition que la nature a mise dans tous les hommes ou manifestement dans la plupart d'entre eux ; pour leur faire porter, quand ils ont atteint l'usage de la raison, un jugement commun et uniforme, sur des objets differents du sentiment, intime de leur propre perception—jugement que n'est point la consequence d'aucun principe interieur." "I mean then here by *Common Sense*,

common principles seldom admit of direct proof, nor do they need it. Men need not to be taught them; for they are (1) such as all men of common understanding know, or (2) such, at least, as they give a ready assent to as soon as they are proposed and understood.

V. *Of axioms.*¹—Such principles, when we have occasion to use them in science, are called *axioms*. And, although it be not absolutely necessary, yet it may be of great use to point out the principles or axioms on which a science is grounded.

VI. Thus, mathematicians, before they prove any of the propositions of mathematics, lay down certain axioms or common principles, upon which they build their reasonings. And, although those axioms be truths, which every man knew before, such as, That the whole is greater than a part: That equal quantities added to equal quantities make equal

the disposition which nature hath implanted in all men, or in the greater part of them, in order to make them form, when they have attained the use of reason, a common and uniform judgment upon objects, which are different from the internal feeling of either our own perception or consciousness—a judgment which is not the consequence of any internal principle."

1 *Axioms*. Distinguish these from *Maxims*. The whole is greater than its part, and the whole is equal to all its parts, are two axioms which are true at all times and in all places. They are therefore eternal, necessary and immutable truths. But *maxims* are moral truths, which may be contingent, and limited to time and place. Honesty is the best policy; man's extremity is God's opportunity; and the child is father of the man, are maxims or proverbs, but they are not necessary and immutable truths. Honesty, which, we will say, means the giving of every man what is his due, and the receiving from every man what is due to us, may be quite superseded by such heavenly maxims as these—It is more blessed to give than to receive: There is that scattereth and yet increaseth. The strictly honest man may be quite unable to comprehend these truths, and you might as well try to persuade him to take the wings of the morning and fly to the uttermost ends of the earth, as to adopt such a line of policy, which these two truths contain.

sums; yet, when we see nothing assumed in the proof of mathematical propositions, but such self-evident axioms, the propositions appear more certain, and leave no room for doubt or dispute.

VII. In all other sciences, as well as in mathematics, it will be found that there are a few common principles upon which all the reasonings in that science are grounded, and into which they may be resolved. If these were pointed out and considered, we should be better able to judge what

The word *maxim* is sometimes, however, put for axiom, as when it is said: Des Cartes placed the criterion of truth in clear and distinct perception, and laid it down as a *maxim*, that whatever we clearly and distinctly perceive to be true, is true.

But it is well that the youthful student should have a more accurate knowledge of these words, which dictionaries do not give.

They were formerly synonymous or convertible terms, and maxims were commonly employed in the sense of axioms, among others by Locke and Leibnitz; but it sounds strange to hear of a mathematical or logical maxim, in the sense of axiom, a self-evident truth or principle. But maxims, finally, glided from the Latinity and philosophical nomenclature of the schools, into all the vernacular languages of Europe as a household word, being applied only in a practical relation, and denoting a moral apothegm, a rule of conduct, an ethical precept, etc., and not always and necessarily true, but what is for the most part and probably so. But these words are now plainly different—axioms meaning *προτάσεις αυτοπρωται*, self-evident propositions, things, not only true, but which one cannot but think to be true—whilst maxims are moral truths not necessarily true, but which are for the most part so.

Axioms were rendered by *ἀξιωματα* (its derivation, which is from the verb *ἀξιωω*, to appreciate, deem worthy, judge) dignitates, pronuntiata honoraria, effota fide digna (enunciations worthy of belief), propositiones illustres, *κυριαὶ δοξαὶ* *ratae*, firmæ sententiæ, etc., whilst maxims were translated, maxima, propositiones maximæ, supremæ, principales, etc. With Boethius, maxima propositio was only a synonyme for axiom, but as a dialectical expression it passed to the schoolmen with whom as soon as it became established as a common term of art, propositio was very naturally omitted, and maxima thus came to be employed as a substantive—and by many at last, who were not aware of the origin and rationale of its meaning.

stress may be laid upon the conclusions in that science. If the principles be certain, the conclusions justly drawn from them must be certain. If the principles be only probable, the conclusions can only be probable. If the principles be false, dubious, or obscure, the superstructure, that is built upon them, must partake of the weakness of the foundation.

VIII. Sir Isaac Newton, the greatest of natural philosophers, has given an example well worthy of imitation, by laying down the common principles or axioms, on which the reasonings in natural philosophy are built. Before this was done, the reasonings of philosophers in that science were as vague and uncertain as they are in most others. Nothing was fixed; all was dispute and controversy. But, by this happy expedient, a solid foundation is laid in that science, and a noble superstructure is raised upon it, about which there is now no more dispute or controversy among men of knowledge than there is about the conclusions of mathematics.

IX. *Difference between physical and mathematical axioms.*¹

It may, however, be observed, that the first principles of natural philosophy are of a quite different nature from mathematical axioms. (1) They have not the same kind of evidence, (2) nor are they necessary truths, as mathematical axioms are. They are such as these: That similar effects proceed from the same or similar causes: That we ought to admit of no other causes of natural effects than such as are true, and sufficient to account for the effects. These are principles which, though they have not the same kind of evidence, that mathematical axioms have, yet have such evidence, that every man of common understanding readily

¹ Vide Note A at the end of Chapter II.

assents to them, and finds it absolutely necessary to conduct his actions and opinions by them in the ordinary affairs of life.

X. *Advantage of laying down first principles in pneumatology.*—Though it has not been usual, yet I conceive it may be useful, to point out some of those things, which I shall take for granted as first principles in treating of the mind and its faculties. There is the more occasion for this, because very ingenious men, such as Des Cartes, Malebranche, Arnauld, Locke, and many others, have lost much labour by not distinguishing things, which require proof, from things, which, though they may admit of *illustration*, yet, being self-evident, do not admit of proof. When men attempt to deduce such self-evident principles from others more evident, they always fall into inconclusive reasoning; and the consequence of this has been, that others, such as Berkeley and Hume, finding the arguments, brought to prove such first principles, to be weak and inconclusive, have been tempted first to doubt them, and afterwards to deny them.

XI. *Caution as to their reception.*—It is so irksome to reason with those, who deny first principles, that wise men commonly decline it. Yet it is not impossible, that what is only a vulgar prejudice,¹ may be mistaken for a first principle. Nor is it impossible, that what is really a first principle may, by the enchantment of words, have such a mist thrown about it, as to hide its evidence, and to make a man of candour doubt it. Such cases happen more

1 That is an opinion or judgment not founded on correct or full knowledge.

frequently perhaps in this science than in any other ; but they are not altogether without remedy. There are ways by which the evidence of first principles may be made more apparent when they are brought into dispute ; but they require to be handled in a way peculiar to themselves. Their evidence is not demonstrative, but intuitive. They require no proof, but to be placed in a proper point of view. This will be shown more fully in its proper place, and applied to those very principles which we now assume. In the meantime, *when they are proposed as first principles, the reader is put on his guard, and warned to consider whether they have a just claim to that character.*

1. *First*, then, I shall take it for granted, that I *think*, that I *remember*, that I *reason*, and, in general, that I really perform all those operations of mind of which I am conscious.

The operations of our minds are attended with *consciousness* ; and this consciousness is the evidence, the only evidence, which we have or can have of their existence. If a man should take it into his head to think or to say that his consciousness may deceive him, and to require proof that it cannot, I know of no proof than can be given him ; he must be left to himself as a man that denies first principles, without which there can be no reasoning. Every man finds himself under a necessity of believing what consciousness testifies, and every thing, that hath this testimony, is to be taken as a first principle.

2. As by consciousness we know certainly the existence of our present thoughts and passions ; so we know the past

by *remembrance*.¹ And when they are recent, and the remembrance of them fresh, the knowledge of them, from such distinct remembrance is, in its certainty and evidence, next to that of consciousness.

3. But it is to be observed, that we are conscious of many things to which we give little or no attention. We can hardly attend to several things at the same time ; and our attention is commonly employed about that, which is the object of our thought, and rarely about the thought itself. Thus, when a man is angry, his attention is turned to the injury done him, or the injurious person ; and he gives very little attention to the passion of anger, although he is conscious of it. It is in our power, however, when we come to the years of understanding, to give attention to our own thoughts and passions, and the various operations of our minds. And when we make these the objects of our attention, either while they are present, or when they are recent and fresh in our memory, this act of the mind is called *reflection*.

We take it for granted, therefore, that, by attentive reflection, a man may have a clear and certain knowledge of the operations of his own mind—a knowledge no less clear and certain, than that which he has of an external object when it is set before his eyes.

This *reflection* is a kind of intuition ; it gives a like conviction with regard to internal objects, or things in the

¹ Remembrance, says Hamilton, cannot be taken out of consciousness. So Memory, then, is an original faculty of the mind. But I think we may legitimately say with Reid, that when remembrance is recent and fresh, it is, in its evidence and certainty, almost consciousness.

mind, as the faculty of seeing gives with regard to objects of sight. A man must, therefore, be convinced beyond possibility of doubt, of every thing with regard to the operations of his own mind, which he clearly and distinctly discerns by attentive reflection.

4. I take it for granted, that all the thoughts of which I am conscious, or remember, are the thoughts of one and the same thinking principle, which I call *myself* or my *mind*. Every man has an immediate and irresistible conviction, not only of his present existence, but of his continued existence and identity, as far back as he can remember. If any man should think fit to demand a proof that the thoughts of which he is successively conscious belong to one and the same thinking principle; if he should demand a proof that he is the same person to-day as he was yesterday, or a year ago, I know no proof that can be given him: he must be left to himself, either as a man that is lunatic, or as one who denies first principles, and is not to be reasoned with.

Every man of a sound mind finds himself under a necessity of believing his own identity, and continued existence. The conviction of this is immediate and irresistible; and if he should lose this conviction, it would be a certain proof of insanity, which is not to be remedied by reasoning.

5. I take it for granted, that there are some things which cannot exist by themselves, but must be in something else to which they belong, as qualities, or attributes.

Thus, motion cannot exist but in something that is moved. And to suppose that there can be motion while every thing is at rest, is a gross and palpable absurdity. In like manner, hardness and softness, sweetness and bitterness,

are things which cannot exist by themselves; they are qualities of something, which is hard or soft, sweet or bitter; that thing, whatever it be, of which they are qualities, is called their *subject*, and such qualities necessarily suppose a subject.

Things which may exist by themselves, and do not necessarily suppose the existence of any thing else, are called *substances*; and with relation to the qualities or attributes that belong to them, they are called the *subjects*, of such qualities or attributes.

All the things, which we immediately perceive by our senses, and all the things of which we are conscious are things, which must be in something else as their subject. Thus by my senses I perceive figure, colour, hardness, softness, motion, resistance, and such like things. But these are qualities, and must necessarily be in something, that is figured, coloured, hard, or soft, that moves or resists. It is not to these qualities, but to that, which is the subject of them, that we give the name of *body*. If any man should think fit to deny that these things are qualities, or that they require any subject, I leave him to enjoy his opinion as a man who denies first principles, and is not fit to be reasoned with. If he has common understanding, he will find that he cannot converse half an hour without saying things, which imply the contrary of what he professes to believe.

In like manner the things of which I am conscious, such as thought, reasoning, and desire, necessarily suppose something that thinks, that reasons, and that desires. We do not give the name of *mind* to thought, reason, or desire; but to that being which thinks, which reasons, and which desires.

That every act or operation, therefore, supposes an agent, and that every quality supposes a subject, are things which I do not attempt to prove, but take for granted. Every man of common understanding discerns this immediately, and cannot entertain the least doubt of it. In all languages we find certain words, which, by grammarians, are called adjectives. Such words denote attributes, and every adjective must have a substantive to which it belongs ; that is, every attribute must have a subject. In all languages we find active verbs, which denote some action or operation ; and it is a fundamental rule in the grammar of all languages, that such a verb supposes a person ; that is, in other words, that every action must have an agent. We take it therefore as a first principle, that goodness, wisdom, and virtue, can only be in some being that is good, wise, and virtuous ; that thinking supposes a being that thinks ; and that every operation of which we are conscious, supposes an agent that operates, and which we call *mind*.

6. I take it for granted, that in most operations of the mind, there must be an *object* distinct from the operation itself. I cannot see, without seeing something. To see without having any object of sight, is absurd. I cannot remember, without remembering something. The thing remembered is *past*, while the remembrance of it is *present* ; and therefore the operation and the object of it must be distinct things. The operation of our minds are denoted, in all languages, by active *transitive* verbs, which, from their construction in grammar, require not only a person or agent, but likewise an object of the operation.

Thus the verb *know*, denotes an operation of mind. From the general structure of language, this verb requires a person ; I know, you know, or he knows. But it requires no less a noun in the objective case, denoting the thing known ; for, he, that knows, must know something ; and to know, without having any object of knowledge, is an absurdity too gross to admit of reasoning.

XII. *Just limit of universal consent as a first principle.*—

7. We ought likewise to take for granted, as first principles, things wherein we find a *universal agreement* among the learned and unlearned in the different nations and ages of the world. A consent of ages and nations,* of the learned and vulgar, ought at least to have great authority, unless we can show some prejudice, as universal as that consent is, which might be the cause of it. Truth is one, but error is infinite. There are many truths so obvious to the human faculties, that it may be expected that men should universally agree in them. And this is actually found to be the case with regard to many truths, against which we find no dissent, unless perhaps that of a few sceptical philosophers, who may justly be suspected, in such cases, to differ from the rest of mankind, through pride, obstinacy, or some favourite passion. Where there is such *universal consent* in things *not deep nor intricate*, but which lie, as it were, on

* "Nec vero alienum est, ad ea eligenda, quae dubitationem afferunt, adhibere doctos homines, vel etiam usu peritos, et quid his de quoque officii genere placeat exquirere."—Cic. de Off. i. 41. "Nor, indeed, is it foreign from our purpose with a view to the selection of those things that occasion doubt, to call in the aid of men of learning or even of practical experience, and to inquire what conclusion such persons form respecting each kind of duty."

the surface, there is the greatest presumption, that can be, that it is the natural result of the human faculties; and it must have great authority with every sober mind, that loves truth. Major enim pars eo fere deferri solet quo a natura deducitur.—Cic. de Off. i. 41. “For the greater part usually pursue that course to which they are led by nature.”

XIII. *The universality of consent may be sufficiently ascertained.*—Perhaps it may be thought that it is impossible to collect the opinions of all men upon any point whatsoever, and, therefore, that this axiom can be of no use. But there are many cases wherein it is otherwise. Who can doubt, for instance, whether mankind have, in all ages, believed in the existence of a material world, and that those things, which they see and handle are real, and not mere illusions and apparitions? Who can doubt, whether mankind have universally believed, that every thing, that begins to exist, and every change, that happens in nature, must have a cause? Who can doubt, whether mankind have been universally persuaded that there is a right and a wrong in human conduct? Or that there are some things which, in certain circumstances, they ought to do, and other things, which they ought not to do? The universality of these opinions, and of many such as might be named, is sufficiently evident (1) from the whole tenor of men’s conduct, as far as our acquaintance reaches, and from the records of history, in all ages and nations, that have been transmitted to us.

There are other opinions that appear to be universal (2) from what is common in the structure of all languages, ancient and modern, polished and barbarous. Language is

the express image and picture of human thoughts ; and from the picture, we may often draw very certain conclusions with regard to the original. We find in all languages the same parts of speech, nouns and adjectives, verbs active and passive, varied according to the tenses of past, present, and future; and we find also adverbs, prepositions, and conjunctions. There are general rules of syntax common to all languages. *This uniformity in the structure of language, shows a certain degree of uniformity in those notions upon which the structure of language is grounded.*

We find, in the structure of all languages, the distinction of acting and being acted upon, the distinction of action and agent, of quality and subject, and many others of the like kind; which shows that these distinctions are founded in the universal sense of mankind.² We shall have frequent occasion to argue from the sense of mankind expressed in the structure of language ; and therefore it was proper here to take notice of the force of arguments drawn from this topic.

8. I need hardly say, that I shall also take for granted such facts as are attested to the conviction of all sober and reasonable men, either by our senses, by memory, or by human testimony. Although some writers on this subject have disputed the authority of the senses, of memory, and of every human faculty, yet we find that such persons in the conduct of life, in pursuing their ends, or in avoiding dangers, pay the same regard to the authority of their senses, and other faculties, as the rest of mankind. By this

² Sense of mankind, that is, their intelligence, opinion or judgment.

they give us just ground to doubt their candour in their professions of scepticism.

XIV. *Sceptics refute themselves.*—This indeed has always been the fate of the few, who have professed *scepticism*; that when they have done what they can to discredit their senses, they find themselves, after all, under a necessity of trusting to them. Mr. Hume has been so candid as to acknowledge this; and it is no less true of those, who have not shown the same candour; for I never heard that any sceptic had ever run his head against a post, or stepped into a kennel, because he did not believe his own eyes.*

XV. Upon the whole, I acknowledge that *we ought to be cautious, that we do not adopt opinions as first principles, which are not entitled to that character.*—But there is surely the least danger of men being imposed upon in this way, when such principles openly lay claim to the character, and are thereby fairly exposed to the examination of those, who may dispute their authority. We do not pretend that those things, that are laid down as first principles, may not be examined, and that we ought not to have our ears open to what may be pleaded against their being admitted as such. Let us deal with them as an upright judge does with a witness, who has a fair character. He pays a regard to the testimony of such a witness, while his character is unimpeached. But if it can be shown that he is suborned, or that he is influenced by malice or partial favour, this testimony loses all its credit, and is justly rejected.

* Vide Essay II., Chap. VIII.—Of the Theory of Perception.

NOTE A.—*Vide* page 67.

Physical and Mathematical Axioms. The former differ from the latter in the following respects: (1) They have not the same kind of evidence, and (2), they are not self-evident and necessary truths, which are true at all times and in all places. In illustrating the difference of these two kinds of axioms, I could not do so better, than by quoting from two of Reid's letters to Lord Kames:—

I. The axioms, or established principles in the *Principia* are three:—(1) Every body perseveres in its present state, whether of motion or rest, until it is made to change that state by some force impressed upon it. (2) The change of motion produced is always proportional to the force impressed, and in the direction of that force. (3) All action of bodies upon each other is mutual or reciprocal, and in contrary directions.

These three laws of motion, Newton sets down as axioms. They are physical axioms, not self-evident truths, incapable of demonstration, but they are matters of fact, which have been observed and verified by many philosophers. Therefore, he appends the following scholium to those axioms: *Hactenus principia tradidi, a mathematicis recepta, et multiplici experientia confirmata*,—"I have set down these thus far as first principles or axioms, having been deduced from mathematics and confirmed by multiplied experience."

II. When we say, that, in falling bodies, the space gone through is as the square of the velocity, it must be carefully observed that the velocity meant in this proposition, is the last velocity, which the body acquires only at the last moment of its fall; but the space meant is the whole space gone through, from the beginning of its fall to the end.

If any writer in physics has pretended to demonstrate mathematically this proposition—that a body falling by gravity *in vacuo* goes through a space, which is as the square of its last velocity, he must be one who writes without distinct conceptions. This proposition is not mathematical, but physical. It admits not of demonstration, but of proof by experiment, or reasoning grounded on experiment. There is, however, a mathematical proposition, which possibly an inaccurate writer might confound with the last-mentioned. It is this—that a body uniformly accelerated from a state of rest, will go through a space, which is as the square of the last velocity. This is an abstract proposition, and has been mathematically demonstrated; and it may be made a step in the proof of the physical proposition. But the proof must be completed by shewing, that, in fact, bodies descending by gravitation are uniformly accelerated. This is sometimes shewn by a machine invented to measure the velocities of falling bodies; sometimes it is proved by the experiments upon pendulums; and sometimes we deduce it from the second law of motion, which we think is grounded on universal experience. So that the proof of the physical proposition always rests ultimately upon experience, and not solely upon mathematical demonstration.

QUESTIONS FOR SELF-EXAMINATION.

What do you understand by the term Common Sense?

What are the three essential characteristics of first principles, as described by Buffier?

What are the two sources of these first principles as given by Buffier?

Common principles, which are the foundation of all reasoning, how named and described?

Mathematical different from physical axioms?

Give a philological account of the two terms *axioms* and *maxima*.

The laying down of first principles more especially requisite in pneumatology?

Caution as to their reception?

First principles taken for granted by Reid?

(1.) The existence of the operations of our minds, proved by consciousness, memory, and reflection?—(2.) Our identity?—(3.) Qualities and their subject.—(4.) This subject as distinct from its operation?—(5.) Things concerning which all men agree?—(6.) The evidence of our senses, by memory or by human testimony?

Limit to the degree of respect due to universal consent?

From two circumstances the universality of opinion may safely be inferred?

How do sceptics refute themselves?

CHAPTER III.

OF HYPOTHESES.¹

I. EVERY branch of human knowledge hath its proper principles, its proper foundation and method of reasoning; and if we endeavour to build it upon any other foundation, it will never stand firm and stable. Thus the historian builds upon testimony, and rarely indulges in conjecture. The antiquarian mixes conjecture with testimony; and the former of these often makes the larger ingredient. The mathema-

¹ Hypothesis. This word is in Greek *ὑποθεσις*; in Latin, *hypothesis*, *suppositio*, *conjectura*, *assumptio*; in French, *hypothèse*; in German, *voraussetzung*; in Italian, *ipotesi*, *supposto di cosa*; which all etymologically denote a *placing under*, or a *laying down*, or *assuming*. Sir Isaac Newton has well defined this word: *Quicquid ex phenomenis non deducitur, hypothesis vocanda est.* "What-ever is not deduced from phenomena must be called a hypothesis."

tician pays not the least regard either to testimony or conjecture, but deduces everything, by demonstrative reasoning, from his definitions and axioms. Indeed, whatever is built upon conjecture, is improperly called science; for conjecture may beget opinion, but it cannot produce knowledge. Natural Philosophy must be built upon the phenomena of the material system, discovered by observation and experiment.

II. When men first began to philosophise, that is, to carry their thoughts beyond the objects of sense, and to inquire into the causes of things, and the secret operations of Nature, it was very natural for them to indulge in conjecture; nor was it to be expected that, in many ages, they should be able to discover the proper and scientific way of proceeding in philosophical disquisitions. Accordingly, we find that the most ancient systems in every branch of philosophy, were nothing but the conjectures of men famous for their wisdom, and whose fame gave authority to their opinions. Thus, in early ages, wise men conjectured that this earth is a vast plain, surrounded on all sides by a *boundless* ocean; and that from this ocean the sun, moon, and stars, emerge at their rising, and plunge into it again at their setting.

III. With regard to the mind, men in their rudest state are apt to conjecture, that the principle of life in a man is his breath: because the most obvious distinction between a living and a dead man is, that the one breathes, and the other does not. To this it is owing, that, in ancient languages, the word, which denotes the soul, is that which properly signifies breath or air.¹

¹ In Greek, $\psi\upsilon\chi\eta$, from $\psi\upsilon\chi\omega$, I breathe, blow; in Latin, *anima*, from *animō*, to fill with breath or air: and in Hebrew, *ruakh*, to breathe, to blow.

IV. As men advance in knowledge, their first conjectures appear silly and childish, and give place to others, which tally better with later observations and discoveries. Thus, one system of philosophy succeeds another, without any claim to superior merit, but this, that it is a more ingenious system of conjectures, and accounts better for common appearances.

V. To omit many ancient systems of this kind, Des Cartes, about the middle of the last century, dissatisfied with the *materia prima*, the *substantial forms*, and the *occult qualities* of the Peripatetics, conjectured boldly, that the heavenly bodies of our system are carried round by a vortex or whirlpool of subtile matter, just as straws and chaff are carried round in a tub of water. He conjectured, that the soul is seated in a small gland in the brain, called the *pineal gland*.¹ that there, as in her chamber of presence, she receives intelligence of everything, that affects the senses, by means of a subtile fluid contained in the nerves, called the animal spirits; and that she dispatches these animal spirits, as her messengers, to put in motion the several muscles of

1 The pineal gland. It is not, however, to be supposed, says Hamilton, that Des Cartes allowed the soul to be seated by local presence in any part of the body: for the smallest point of body is still extended, and mind is absolutely simple and incapable of occupying place. The pineal gland, in the Cartesian doctrine, is only analogically called the seat of the soul, inasmuch as this is viewed as the central point of the corporeal organism; but while, through this point, the mind and body are mutually connected, that connection is not one of a mere physical dependence, as they do not operate on each other, by direct natural causation.

These wild conjectures regarding the movements of the heavenly bodies and the seat of the soul gave rise to the saying—The Philosophy of Des Cartes is the Romance of Nature. And he himself says of his hypotheses, that they are "philosophical romances."

the body as there is occasion. By such conjectures as these, Des Cartes could account for every phenomenon in nature, in such a plausible manner, as gave satisfaction to a great part of the learned world for more than half a century.

VI. Such conjectures in philosophical matters have commonly got the name of *hypotheses* or *theories*.¹ And the invention of a hypothesis, founded on some slight probabilities, which accounts for many appearances of Nature, has been considered as the highest attainment of a Philosopher. If the hypothesis hangs well together, is embellished by a lively imagination, and serves to account for common appearances, it is considered by many as having all the qualities that recommend it to our belief, and that ought to be required in a philosophical system.

VII. *Danger of receiving Hypotheses.*—[There is *such proneness in men of genius to invent hypotheses, and in others to acquiesce in them* as the utmost which the human faculties can attain in philosophy, that it is of the greatest consequence to the progress of real knowledge, that men should have a clear and distinct understanding of the nature of hypotheses in philosophy, and of the regard that is due to them.]

VIII. *The probability is considerably against the truth of Hypotheses.*—Although some conjectures may have a considerable degree of probability, yet it is evidently in the nature of conjecture to be uncertain. In every case the assent ought to be proportioned to the evidence; for to believe firmly, what has but a small degree of probability, is

¹ Reid always employs the terms—Theory, Hypothesis, and Conjecture, as convertible, and in an unfavourable meaning.

a manifest abuse of our understanding. [Now, though we may, in many cases, form very probable conjectures concerning the works of men, every conjecture we can form with regard to the works of God, has as little probability as the conjectures of a child with regard to the works of a man.]

IX. The wisdom of God exceeds that of the wisest man, more than that of the wisest man exceeds the wisdom of a child. If a child was to conjecture how an army is to be formed in the day of battle, how a city is to be fortified, or a state governed; what chance has he to guess rightly? As little chance then has the wisest man to guess correctly when he pretends to conjecture how the planets move in their courses, how the sea ebbs and flows, and how our minds act upon our bodies.

X. If a thousand of the greatest wits, that ever the world produced, were, without any previous knowledge in anatomy, to sit down and contrive how, and by what internal organs, the various functions of the human body are carried on, how the blood is made to circulate, and the limbs to move, they would not in a thousand years hit upon anything like the truth.

XI. Of all the discoveries, that have been made concerning the inward structure of the human body, no one was ever made by conjecture. Accurate observations of anatomists have brought to light innumerable artifices of Nature in the contrivance of this machine of the human body, which we cannot but admire as excellently adapted to their several purposes. But the most sagacious physiologist never dreamed of them till they were discovered. On the other hand, innumerable conjectures, formed in different ages, with regard

to the structure of the body, have been confuted by observation, but none ever confirmed by it.

XII. What we have said of the internal structure of the human body, may be said with justice, of every other part of the works of God, wherein any real discovery has been made. Such discoveries have always been made by patient observation, by accurate experiments, or by conclusions drawn by strict reasoning from observations and experiments ; and such discoveries have always tended to refute, but not to confirm, the theories and hypothesis, which ingenious men had invented.

XIII. As this is a fact confirmed by the history of philosophy in all past ages, it ought to have taught men, long ago, to treat with just contempt hypotheses in every branch of philosophy, and to despair of ever advancing real knowledge in that way. The Indian philosopher, being at a loss to know how the earth was supported, invented the hypothesis of a huge elephant ; and this elephant he supposed to stand upon the back of a huge tortoise. This hypothesis, however ridiculous it appears to us, might seem very reasonable to other Indians, who knew no more of it than the inventor himself ; and the same will be the fate of all hypotheses, which are invented by men to account for the works of God : they may have a decent and plausible appearance to those, who are not more knowing than the inventor ; but, when men come to be more enlightened, they will always appear ridiculous and childish.

XIV. This has been the case with regard to hypotheses, that have been revered by the most enlightened part of man-

kind for hundreds of years ; and it will always be the case to the end of the world. [For, until the wisdom of men bear some proportion to the wisdom of God, their attempts to find out the structure of His works, by the force of their wit and genius, will be in vain.]

XV. *Disparity between natural and artificial works.*—The finest productions of human art are immensely short of the meanest works of Nature. The nicest artist cannot make a feather, or the leaf of a tree. Human workmanship will never bear a comparison with the divine. [Conjectures and hypotheses are the invention and the workmanship of men, and must bear proportion to the capacity and skill of the inventor ; and they will therefore always be very unlike to the works of God, which are perfect, and which it is the business of philosophy to discover.]

XVI. The world has been so long befooled by hypotheses in all parts of philosophy, that it is of the utmost consequence to every man, who would make any progress in real knowledge, to treat them with just contempt as the reveries of vain and fanciful men, whose pride makes them conceive themselves able to unfold the mysteries of Nature by the force of their genius. A learned man, in an epistle to Des Cartes, has the following observation, which very much deserved the attention of that philosopher, and of all that have come after him. “When men, sitting in their closet, and consulting only their books, attempt disquisitions into Nature, they may indeed tell how they would have made the world, if God had given them that in commission to do ; that is, they may describe chimeras, which correspond with the

imbecility of their own minds, no less than the admirable beauty of the universe corresponds with the infinite perfection of its Creator ; but without an understanding truly divine, they could never form such an idea to themselves as the Deity had in creating things."

XVII. Let us, therefore, lay this down as a fundamental principle in our inquiries into the structure of the mind, and its operations, that no regard is due to the conjectures or hypotheses of philosophers, however ancient they may be, and however generally received. Let us accustom ourselves to try every opinion by the touchstone of fact and experience. Whatever can fairly be deduced from facts duly observed, or sufficiently attested, is genuine and pure ; it is the voice of God, and no fiction of human imagination.

XVIII. *True test of hypotheses.*—The first rule of philosophising laid down by the great Newton, is this :¹ Causas

1. This Newtonian rule has not been very elegantly translated in the text. It should be—No other causes of natural effects ought to be admitted, than those which are both true and suffice for the explanation of their phenomena.

Hamilton says : For this rule we are not indebted to Newton. It is only the old law of parcimony, and that ambiguously expressed. For, in their plain meaning, the words, "et veræ sint," are redundant, or what follows is redundant ; and the whole rule is a barren truism. I think, however, that it may be exempted from the charge of redundancy ; for the two conditions are distinct. (1) The causes ought to be true, that is, to have a real existence, and not to be barely conjectured to exist without proof. (2) The causes ought to be sufficient to produce the effect. *Vide* next Sect. XIX.

This regulative principle may be named the law or maxim of parcimony. It is in these words: *Entia non sunt multiplicanda præter necessitatem. Frustra fit per plura quod fieri potest per pauciora.* "Substances must not be multiplied beyond necessity. (For) that is done to no purpose by more, which can be done by fewer." In other words—A plurality of principles are not to be assumed, when the phenomena can possibly be explained by one.

rerum naturalium, non plures admitti debere, quam quæ et veræ sint, et earum phænomenis explicandis sufficient. ["No more causes, nor any other causes of natural effects ought to be admitted, than such as are both true, and are sufficient for explaining their appearances."]¹ This is a golden rule ; it is the true and proper test, by which what is sound and solid in philosophy may be distinguished from what is hollow and vain.

XIX. *Its application.*—If a philosopher, therefore, pretends to show us the cause of any natural effect, whether relating to matter or to mind, let us *first consider whether there is sufficient evidence that the cause he assigns does really exist.* If there is not, reject it with disdain as a fiction, which ought to have no place in genuine philosophy. If the cause assigned really exists, *consider in the next place, whether the effect it is brought to explain necessarily follows from it.* Unless it have these two conditions it is good for nothing.¹

XX. When Newton had shown the admirable effects of gravitation in our planetary system, he must have felt a strong desire to know its cause. He could have invented a hypothesis for this purpose, as many had done before him. But his philosophy was of another complexion. Let us hear what he says : Rationem harum gravitatis proprietatum ex phænomenis non potui deducere, et hypotheses non fingo. Quicquid enim ex phænomenis non deducitur, hypothesis vocanda est. Et hypotheses, seu metaphysicæ, seu physicæ,

¹ "Hypotheses, if they are well made, are at least (1) great helps to the memory, and (2) often direct us to new discoveries."—Locke, book iv. chap. xii.

seu qualitatum occultarium, seu mechanicæ, in philosophia experimentalis locum non habent. "I have not been able to deduce from appearances the cause of these properties of gravity, and I do not form hypotheses. For whatever is not deduced from appearances must be termed a hypothesis. And hypotheses, whether regarding physics, metaphysics, occult qualities¹ or mechanics, have no place in experimental philosophy."

1 Occult Qualities. The qualities of bodies have been divided into *manifest* and *occult*. The manifest are those which have been otherwise called primary—such as Extension, Figure, Divisibility, Motion, Hardness, Softness, Fluidity, and Solidity. But the occult may be sub-divided into various kinds—(1) The secondary qualities, such as Sound, Colour, Taste, Smell, Heat (which may also be termed a sensible and latent quality, and also a principle in bodies, and it is then termed Calor), and Cold (which is a negative quality); (2) The disorders we feel in our bodies (which are abnormal qualities); and (3), All the qualities, which we call powers of bodies, whether mechanical, chemical, medical, animal, vegetable, etc.

QUESTIONS FOR SELF-EXAMINATION.

What is Isaac Newton's definition of a hypothesis?

What philosophy was full of conjectures?

What other words are synonymous with hypothesis by Reid?

What general caution is there need for against the adoption of hypotheses?

Is there strong probability against their truth *a priori*?

What is the true criterion of hypotheses?

Repeat the old law of parcimony.

What did Locke say regarding hypotheses?

What great philosopher said of his own philosophy?—*Et hypotheses non fingo.*

CHAPTER IV.

OF ANALOGY.¹

I. *Conclusions drawn from analogy entitled to our attention.*—It is *natural to men* to judge of things less known, by some similitude which they observe, or think they observe, between them and things more familiar or better known. In many cases, we have no better way of judging. And where the things compared have really a great similitude in their nature, and when there is reason to think that they are subject to the same laws, there may be a considerable degree of probability in conclusions drawn from analogy.

II. Thus, we may observe a very great similitude between this earth which we inhabit, and the other planets, Saturn, Jupiter, Mars, Venus, and Mercury. They all revolve round the sun, as the earth does, although at different distances and in different periods. They borrow all their light from the sun, as the earth does. Several of them are known to revolve round their axis like the earth, and, by that means, must have a like succession of day and night. Some of them have moons, that serve to give them light in

¹ Analogy. This word is from the Greek *αναλογία*, and in other languages it is but the Greek word in Roman letters—in Latin, *analogia*; in French, *analogie*; in Italian, *analogia*, *affinità*; and in German, *analogie*, and also *ähnlichkeit*.

It has been defined—the similarity of ratios, or relations. But in common language it also denotes the resemblance of things, as well as relations. We do not say that a man reasons from analogy when he concludes that a stone thrown into the air will fall to the ground. This has happened times without number, so that we say the cases are identical, but not analogical. But when Sir Isaac Newton, reflecting on the tendency of bodies at the surface of the earth to the centre, inferred the moon had the same tendency, his reasoning was analogical. In Logic, three modes of reasoning are called analogical. (1) *A posteriori*, from effect to cause, or *a priori*, from cause to effect. (2) From means to ends, or from ends to means. (3) From mere resemblance or concomitance.

the absence of the sun, as our moon does to us. They are all, in their motions, subject to the same law of gravitation, as the earth is. From all this similitude, it is not unreasonable to think, that those planets may, like our earth, be the habitation of various orders of living creatures. There is some probability in this conclusion from analogy.

III. In medicine, Physicians must, for the most part, be directed in their prescriptions by analogy. The constitution of one human body is so like to that of another, that it is reasonable to think, that what is the cause of health or sickness to one, may have the same effect upon another. And this generally is found true, though not without some exceptions.

In politics, we reason, for the most part, from analogy. The constitution of human nature is so similar in different societies or commonwealths, that the causes of peace and war, of tranquillity and sedition, of riches and poverty, of improvement and degeneracy, are much the same in all.

IV. *But analogies should be carefully examined.*—Analogical reasoning, therefore, is not, in all cases, to be rejected. It may afford a greater or a less degree of probability, according as the things compared are more or less similar in their nature. [But it ought to be observed, that, as this kind of reasoning can afford only probable evidence at best, so unless great caution be used, we are apt to be led into error by it. *For men are naturally disposed to conceive a greater similitude in things than there really is.**]

* Berkeley says, "We should proceed warily in such things; for we are apt to lay too great a stress on *analogies*, and to the prejudice of truth; humour that eagerness of mind, whereby it is carried to extend its knowledge into general theorems."—Principles of Human Knowledge. Part I. Sect. 106.

To give an instance of this : Anatomists in ancient ages, seldom dissected human bodies ; but very often the bodies of those quadrupeds, whose internal structure was thought to approach nearest to that of the human body. Modern anatomists have discovered many mistakes the ancients were led into by their conceiving a greater similitude between the structure of men and of some beasts than there is in reality. By this, and many other instances that might be given, it appears, that conclusions built on analogy stand on a slippery foundation ; and that we ought never to rest upon evidence of this kind, when we can have more direct evidence.

I know no author, who has made a more just and happier use of this mode of reasoning, than Bishop Butler, in his "Analogy of Religion, Natural and Revealed, to the Constitution and Course of Nature." In that excellent work, the author does not ground any of the truths of religion upon analogy, as their proper evidence. He only makes use of analogy to answer objections against them. When objections are made against the truths of religion, which may be made with equal strength against what we know to be true in the course of nature, such objections can have no weight.

V. *Uses of analogy.*—[Analogical reasoning, therefore, may be of excellent use (1) in answering objections against truths, which have *other* evidence. It may likewise (2) give a greater or a less degree of probability in cases where we can find no other evidence.] But all arguments drawn from analogy, are still the weaker, the greater disparity there is between the things compared ; and they, therefore, must be

the weakest of all when we compare body with mind, because there are no two things in nature more unlike.

VI. *It is, however, a source of error with regard to the operations of the mind.*—[There is no subject in which men have always been so prone to form their notions by analogies of this kind, as in what relates to the mind.] We form an early acquaintance with material things by means of our senses, and grow up in a constant familiarity with them.

Examples of errors of this class.—Hence we are apt to measure all things by them; and to ascribe to things most remote from matter, the qualities, that belong to material things. It is for this reason, that mankind have, in all ages, been so prone to conceive the *mind itself to be some subtile kind of matter*: that they have been disposed to ascribe *human figure*, and *human organs*, not only to *angels*, but even to the *Deity*. Though we are conscious of the operations of our own minds when they are exerted, and are capable of attending to them, so as to form a distinct notion of them, yet this is so difficult a work to men, whose attention is constantly diverted by external objects, that *we give them names from things, that are familiar*, and which are *conceived to have some similitude to them*; and the notions we form of them are no less analogical than the names we give them. Almost all the words, by which we express the operations of the mind, are borrowed from material objects. To *understand*, to *conceive*, to *imagine*, to *comprehend*, to *deliberate*, to *infer*, and many others, are words of this kind; so that the very language of mankind, with regard to the operations of our minds, is analogical. Because bodies are affected only by contact and pressure, *we are apt to conceive, that what*

is an immediate object of thought and *affects the mind must be in contact with it*, and make some impression upon it. When we imagine anything, the very word leads us to think, that there must be some image in the mind, of the thing conceived. It is evident, that these notions are drawn from some similitude conceived between body and mind, and between the properties of body and the operations of mind.

To illustrate more fully that *analogical reasoning* which arises from a supposed similitude of mind to body, and which *I conceive to be the most fruitful source of errors* with regard to the *operations* of our minds, I shall give an instance of it.

When a man is urged by contrary motives, those on one hand inciting him to do some action, those on the other to forbear it, or refrain from it; he deliberates about it, and at last resolves to do it, or not to do it. The contrary motives are here compared to the weights in the opposite scales of a *balance*; and there is not perhaps any instance, that can be named, of a more striking analogy between body and mind. Hence the phrases of *weighing motives*, and of deliberating upon actions, are common to all languages.

VII. From this analogy, some philosophers draw very important conclusions. They say, that, as the balance cannot incline to one side more than the other, when the opposite weights are equal: so a man cannot possibly determine himself, if the motives on both hands are equal; and, as the balance must necessarily turn to that side, which has most weight; so the man must necessarily be determined to that hand where the motive is strongest. And on this foundation, some of the schoolmen

maintained, that, if a hungry ass¹ were placed between two bundles of hay equally inviting, the beast must stand still and starve to death, being unable to turn to either, because there are equal motives to both. This is an instance of that analogical reasoning, which I conceive ought never to be trusted: for, the analogy between a balance and a man deliberating, though one of the strongest that can be found between matter and mind, is too weak to support any argument. A piece of dead inactive matter, and an active intelligent being, are things very unlike; and, because the one would remain at rest in a certain case, it does not follow that the other would be inactive in a case somewhat similar. The argument is no better than this, that, because a dead animal moves only as it is moved, and, if pushed with equal force in contrary directions, it must remain at rest; therefore the same thing must happen to a living animal; for surely the similitude (or rather dissimilitude), between a dead animal and a living, is as great as that between a balance and a man.

VIII. *Recapitulation.*—The conclusion I would draw from all that has been said on analogy, is, that, in our inquiries concerning the mind, and its operations, (1) we ought never to trust to reasonings, drawn from some supposed similitude of body to mind; and (2) that we ought to be

¹ This illustration, says Hamilton, is specially associated with Joannes Buridanus, a celebrated moralist of the 14th century, and one of the acutest reasoners on the great question of moral liberty. The supposition of the ass, etc., is not, however, as I have ascertained, to be found in his writings. Perhaps it was orally advanced in disputation, or in lecturing, as an example of his Determinism; or perhaps it was employed by his opponents as an instance to reduce that doctrine to absurdity.

very much upon our guard, that we be not imposed upon by those analogical terms and phrases, by which the operations of the mind are expressed in all languages.

QUESTIONS FOR SELF-EXAMINATION.

Define or describe analogy, and state in what case it is most probably true.

Name the three modes of analogical reasoning in Logic.

How does analogy so frequently lead to erroneous conclusions?

What are its two uses, and in what science is it to be most carefully avoided?

Name four remarkable errors into which this mode of reasoning has drawn metaphysical writers.

What two conclusions may we draw from all that has been said on analogy?

CHAPTER V.

OF THE PROPER MEANS OF KNOWING THE OPERATIONS OF THE MIND.

I. *True source of all knowledge of the mind and of its operations.*—SINCE we ought to pay no regard to hypotheses, and to be very suspicious of analogical reasoning, it may be asked, from what source must the knowledge of the mind and its faculties be drawn?

I answer, [the chief and the proper source of this branch of knowledge is accurate *reflection* upon the operations of our own minds.] Of this source we shall speak more fully, after making some remarks upon two others that may be subservient to it. The first of them is attention to the structure of language, and the second to the opinions and conduct of mankind.

II. *First auxiliary source.*—The language of mankind is expressive of their thoughts, and of the various operations of their minds. The various operations of the understanding, will, and passions, which are common to mankind, have

various forms of speech corresponding to them in all languages, which are the signs of them, and by which they are expressed : and a due attention to the *signs* may, in many cases, give considerable light to the things signified by them.

There are in all languages modes of speech, by which men signify their judgment, or give their testimony ; by which they accept or refuse ; by which they ask information or advice ; by which they command, threaten, or supplicate ; and by which they plight their faith in promises and contracts. If such operations were not common to mankind, we should not find in all languages forms of speech by which they are expressed.

III. *General imperfections of language.*—All languages, indeed, have their imperfections ; *they can never be adequate to all the varieties of human thought* ; and therefore things may be really distinct in their nature, and capable of being distinguished by the human mind, which are not distinguished in common language. We can only expect, in the structure of languages, those distinctions which all mankind in the common business of life have occasion to make.

IV. *Coincidences.*—There may be peculiarities in a particular language of the causes of which we are ignorant, and from which, therefore, we can draw no conclusion. But whatever we find common to all languages, must have a common cause, and must be owing to some common notion or sentiment of the human mind.

We gave some examples of this before, and shall here add another. All languages have a plural number in many of their nouns ; from which we may infer, that all men have notions, not of individual things only, but of attributes or

things, which are common to many individuals; for no individual can have a plural number.

Second auxiliary source.—

Another source of information on this subject is a due attention to the course of common actions (opinions) and conduct. The actions of men are effects: their sentiments, their passions, and their affections, are the causes of those effects; and we may, in many cases, form a judgment of the cause from the effect.¹ The behaviour of parents towards their children gives sufficient evidence even to those who never had children, that the parental affection is common to mankind. It is easy to see, from the general conduct of men, what are the natural objects of their esteem, their admiration, their love, their approbation, their resentment, and of all their other original dispositions. It is obvious, from the conduct of men in all ages, that man is by his nature a social animal; that he delights to associate with his species; and to converse, and to exchange good offices with them.

V. Not only the *actions*, but even the *opinions* of men may sometimes give light into the frame of the human mind. The opinions of men may be considered as the effects of their *intellectual* powers, as their actions are the effects of their *active* principles. Even the prejudices and errors of mankind, when they are general, must have some cause no less general, and the discovery of which will throw some light upon the frame of the human understanding.

I conceive this to be the principal use of the history of

¹ Vide Sect. I. and II. pp. 95 and 96. In the first case we judge of the thing signified, from the sign; in the second of the cause from the effect.

philosophy. When we trace the history of the various philosophical opinions that have sprung up among thinking men, we are led into a labyrinth of fanciful opinions, contradictions, and absurdities, intermixed with some truths; yet we may sometimes find a clue to lead us through the several windings of this labyrinth: we may find that point of view which presented things to the author of the system, in the light in which they appeared to him. This will often give a consistency to things seemingly contradictory, and some degree of probability to those that appeared most fanciful.¹

VI. The history of philosophy, considered as a map of the intellectual operations of men of genius, must always be *entertaining*, and may sometimes give us views of the *human understanding* which could not be easily had in any other way.

VII. *Main source of our knowledge of the operations of the mind.*—I return to what I mentioned as the main source of information on this subject—attentive *reflection* upon the operations of our own mind.²

1 "Every error," says Bossuet, as quoted by Hamilton, "is a truth abused," that is, is misapplied or misunderstood. And this axiom is true, not only with respect to all philosophies, but even all religions.

2 Reflection. Reid takes this act of the mind as a first principle, and he has very clearly described and defined it in Chap. II., Sect. xi. 3, and which he deems as the main and true source of our knowledge of the operations of the mind. The origin of this word Reflection, which is derived from the Latin, *reflecto*, to bend backward, perhaps may be traced to Aristotle's comparison of a straight and spiral or crooked line. To this ingenious author (Reid) we are indebted, says Mr. Stewart, for the remark, that attention to things external, is properly called *observation*; and attention to the subjects of our consciousness, *reflection*.

The word reflection, says Reid, in its proper and common meaning, is equally applicable to objects of sense, and to objects of consciousness. For surely, I may reflect upon what I have seen or heard, as well as upon what I have thought. Essay VI., Chap. I., Sect. 27.

Mr. Stewart, says Hamilton, makes a curious misstatement of the meaning at-

All the notions we have of mind and of its operations, are, by Mr. Locke, called *ideas of reflection*.¹ A man may have tached by Reid to the word Reflection, if this passage and others are taken into account. Hamilton further says, that Reid employs these terms—Attention and Reflection—as synonymous expressions, or he distinguishes them only by making Attention relative to the consciousness and perception of the present, and Reflection to the memory of the past.

Reid only says that attention enters into Reflection, and that when it is directed to external objects it is properly called *observation*, but when to the subjects of our consciousness, it is properly termed *reflection*. When I view a plant and attend to the various parts of its structure, this is *observation*; but when I turn from the plant and consider, think, and reason upon its parts and functions, and compare, it may be, these with those of an animal, this is reflection, and attention is involved in both of these acts of the mind. Attention is a generic term, but Observation and Reflection are specific ones.

1 Ideas of Reflection. "Locke," says Hamilton, "is not the first, as Reid thinks, and as Mr. Stewart expressly says that Locke so thought himself, who introduced Reflection either as a psychological term, or a psychological principle."

This term is common to the whole School of Philosophy, and is denoted by such expressions as the following :—

"Perception, (the faculty of knowing), seems to go and to be turned, thought bending backwards, and working in the life of the soul, is capable of being withdrawn again, etc." *Intentionem in ante cogitata reflectare—mira potentiae figura mens in se reflexae—animadversio mentis in seipsam.* "To bend the attention on things thought of before." "The mind wonderful for the conformation of reflexive power towards itself." "The animadversion of the mind upon itself."

There is the scholastic dictum. *Reflexiva cogitatio facile est deflexiva.*—"Turning aside is easy, but turning backwards, this is work and thought;"—pointing at the difficulty of turning inwards upon self.

This word, reflection, was employed by a great many writers long before the days of Locke, such as St. Augustin, Duns Scotus, Durandus, Scaliger, Melancthon, etc.

"No part of bodies knows anything of itself, nor can turn towards itself : for the hand knows not herself, nor does any other part of the body. And even the speechless or irrational powers, although being incorporeal, know not themselves; for Seeing knows not herself, nor Hearing, nor Perception, simply or abstractedly, (that is the perceiving Faculty) nor does any one of these seek to know of what nature she is; but Reason, the Understanding, the Intellect, λογος, ratio, raison, vernunft, She it is, who enquireth concerning them. However, the Soul herself, the reasoning Soul, knows herself. Accordingly, she is the same, which seeketh, and the same, which is sought. She is the same, which findeth, and the same, which is found; and she is the same, which knoweth, and the same, which is known. Behold her, then, although immaterial, how visibly she hath been brought forth to view."—*Philoponus, in Arist. De Anima, Sign A. IV.*

as distinct notions of remembrance, of judgment, of will, of desire, as he has of any object whatever. Such notions, as Mr. Locke justly observes, are got by the power of reflection. But what is this power of reflection? It is, says the same author, "that power by which the mind turns its view inward, and observes its own actions and operations." He observes elsewhere, "That the understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and that it requires art and pains to set it at a distance, and make it its own object." Cicero hath expressed this sentiment most beautifully.¹

This power of the understanding to make its own operations its object, to attend to them, and examine them on all sides, is the power of reflection, by which alone we can have any distinct notion of the powers of our own or of other minds.

This *reflection*² ought to be distinguished from *conscious-*

1 At ut oculus, sic animus se non videns alia cernit. Tusc. I. 28.

"But as the eye, which seeth not
Herself, all other things doth see;
So is it with the mind, I wot,
Unless it by Reflection be."

2 He has restricted, says Reid, the word reflection to that which is employed about the operations of our minds, without any authority, as I think, from custom, the arbiter of language. He has likewise confounded reflection with consciousness, and seems not to have been aware that they are different powers, and appear at very different periods of life.

But the word reflection, says Reid, is commonly used in a much more extensive sense; it is applied to many operations of the mind, with more propriety than to that of consciousness. We reflect, when we remember, or call to mind what is past, and survey it with attention. We reflect, when we define, when we distinguish, when we judge, when we reason, whether about things material or intellectual. When reflection is taken in this sense, which is more common, and therefore more proper, than the sense which Mr. Locke has put upon it. It may be justly said to be the only source of all our distinct and accurate notions of things. Essay III. Chap. v.

ness, with which it is too often confounded, even by Mr. Locke. All men are conscious of the operations of their own minds, at all times, while they are awake; but there are few who reflect upon them, or make them objects of thought.

From infancy, till we come to the years of understanding, we are employed solely about external objects; and, although the mind is conscious of its operations, it does not attend to them; its attention is turned solely to the external objects, about which those operations are employed. Thus, when a man is angry, he is conscious of his passion; but his attention is turned to the person, who offended him, and the circumstances of the offence, while the passion of anger is not in the least the object of his attention.

VIII. *Reflection distinct from consciousness.*¹—I conceive

1 Reflection distinct from consciousness.

I. Reflection. (1) It is a voluntary act, that is, it requires active exertion to begin and sustain it. (2) It may be continued as long as we will. (3) It doth not appear at all in young persons. (4) It is that power of the mind which unfolds itself last. (5) It seems properly to be a state or habitude of mind, and not a special faculty or natural power, but an acquired power. (6) It is not one power of the mind, but comprehends many, such as recollection, attention, distinguishing, comparing, and judging.

II. Consciousness. (1) It is involuntary and of no continuance, changing with every thought. (2) It exists from our earliest years of remembrance. (3) Consciousness is only of things present and not of the past. (4) Consciousness is only of things in the mind and not of external things. (5) It is a special faculty, or a natural and active power of the mind.

These are a summary of the distinctions which Reid makes between Reflection and Consciousness, and I think that he is here the master both of Locke and Hamilton.

The law of limitation, says Hamilton, is expressed in the old adage—*Pluribus intentus minor est ad singula sensus*. "Consciousness or Intelligence directed towards many objects is less in intensity to each."

Such being the law, he continues, it follows that when our interest in any particular object is excited, and when we wish to obtain all the knowledge con-

this is sufficient to show the difference between consciousness of the operations of our minds, and reflection upon them ; and to show that we may have the former without any de-

cerning it in our power, it behoves us to limit our consideration to that object, to the exclusion of others. This is done by an act of volition or desire which is called *attention*. But to view attention as a special act of intelligence, and to distinguish it from consciousness, is utterly inept. Attention is consciousness and something more. It is consciousness voluntarily applied, under the law of limitation, to some determinate object ; it is consciousness concentrated.

But this concentrated energy of consciousness is acquired by habit. It is therefore a power of the mind, although many philosophers have held it to be a native faculty of the mind.

Man, to distract his attention from pain, sits down to a game of chess, and becomes so absorbed or abstracted in the game, that he does not feel its pangs. Or it may be better illustrated in the case of Saul troubled with an evil spirit ; so that, when David took a harp and played with his hand, Saul was refreshed and was well, and the evil spirit departed from him.

And as it is necessary to perception that the eye may be open ; so also is attention, or that certain turning of the mind which is called by the Greeks *προσέχειν τὸν νόον* (that is to stretch the mind) necessary to the intelligence or mind, in order to understand. This is, as it were, a certain opening of the mind to the reception of what is offered to it.—*Vives De Anima, Lib. II.*

Hamilton remarks : I think Reid and Stewart incorrect in asserting that Attention is only a voluntary act, meaning by the expression voluntary, an act of free will. I am far from maintaining, as Brown and others do, that all will is desire ; but still, I am persuaded that we are frequently determined to an act of Attention, as to many other acts, independently of our free and deliberate volition. The faculty of Attention is not, therefore, a special faculty, but merely consciousness acting under the *law of limitation*, to which it is subjected. But whatever be its relations to the special faculties, Attention doubles all their efficiency, and affords them a power of which they would otherwise be destitute. It is, in fact, as we are at present constituted, the primary condition of their activity.

But have all men this Attention, External and Internal ? No ; it is a state or habitude of mind. It is to be acquired and improved by discipline and training. We may learn to be attentive and reflective, just as we learn to write and count.

Michael Psellus took attention for a middle faculty of mind, which he thus defines—"Attention is that by which we attend to the deeds which we do, and the words which we speak."

The more recent interpreters say that it is the function of the attentive part of the rational soul to take cognisance of the energies of sense ; for, according to

gree of the latter. The difference between *consciousness* and *reflection*, is like to the difference between a superficial view of an object which presents itself to the eye, while we are engaged about something else, and that attentive examination which we give to an object when we are wholly employed in surveying it. Attention is (1) a *voluntary* act; it requires an active exertion to begin and to continue it; and (2) it may be *continued* as long as we will; but consciousness is *involuntary*, and of no continuance, *changing with every thought*.

IX. *Reflection later than the other powers of the mind.*—The power of reflection upon the operations of their own minds does not appear at all in children. Men must have come to some ripeness of understanding before they are capable of it. Of all the powers of the human mind, it seems to be the *last that unfolds itself*. Most men seem incapable of acquiring it in any considerable degree. Like all other powers, it is greatly improved by exercise; and, until a man has got the habit of attending to the operations of his own mind, he can never have clear and distinct notions of them, nor form any steady judgment concerning them. His opinions must be borrowed from others, his notions confused and indistinct, and he may easily be led to swallow very gross absurdities. To acquire this habit, is a work of time and labour, even in those, who begin it early, and whose natural talents are

them the rational soul not only comprehends the faculties of Intelligence, Thought, Opinion, Will, and Election, but they also thrust into it another sixth faculty, which they call that of Attention.—*Philoponus, in Arist.*

Attention is therefore that which is cognisant of our sensitive energies. But when it has to do with the moral life it is called conscience, or consciousness; for these two words, both in Greek and English, seem convertible.

tolerably fitted for it ; but the difficulty will be daily diminishing, and the advantage of it is great. They will thereby be enabled to think with precision and accuracy on every subject, especially on those subjects that are more abstract. They will be able to judge for themselves in many important points, wherein others must blindly follow a leader.

QUESTIONS FOR EXAMINATION.

The true source of all knowledge of the mind and of its operations twofold ?

A general imperfection of all languages ?

What advantage results from studying the history of philosophy ?

Reflection different from consciousness ?

Enumerate the various distinctions between these.

CHAPTER VI.

OF THE DIFFICULTY OF ATTENDING TO THE OPERATIONS OF OUR OWN MINDS.

I. *THE difficulty of attending to our mental operations* ought to be well understood, and justly estimated by those, who would make any progress in this science ; that they may neither, on the one hand, expect success without pains and application of thought ; nor, on the other, be discouraged, by conceiving that the obstacles, that lie in the way are insuperable, and that there is no certainty to be attained in it. I shall, therefore, endeavour to point out the causes of this difficulty, and the effects that have arisen from it, that we may be able to form a true judgment of both.

1. *The number and quick succession of the operations of the mind* make it difficult to give due attention to them. It is well known, that if a great number of objects be presented in quick succession, even to the eye, they are confounded in the memory and imagination. We retain a confused notion of the whole, and a more confused one of the several parts, especially if they are objects to which we have never before given particular attention. No succession can be more quick than that of thought. The mind is busy while we are awake, continually passing from one thought, and one operation, to another. The scene is constantly shifting. Every man will be sensible of this, who tries but for one minute to keep the same thought in his imagination,* without addition or variation. He will find it impossible to keep the scene of his imagination fixed. Other objects will intrude themselves without being called, and all he can do is to reject these intruders as quickly as possible, and return to his principal object.

2. In this exercise, *we go contrary to habits*, which have been early acquired, and confirmed by long unvaried practice. From infancy, we are accustomed to attend to objects of sense, and to them only ; and, when sensible objects have got such a strong hold of the attention by confirmed habit, it is not easy to dispossess them. When we grow up, a variety of external objects solicits our attention, excites our curiosity, engages our affections, or touches our passions ; and the constant round of employment, about external objects, draws off the mind from attending to itself ; so that nothing is more just than the observation of Mr. Locke before men-

* Vide Locke's Essay, book ii. chap. xiv. sect. 18-15.

tioned, "That the understanding, like the eye, while it surveys all the objects around it, commonly takes no notice of itself."

3. The *operations* of the mind, from their very nature, *lead the mind to give its attention to some other object*. Our sensations, as will be shown afterwards, are natural signs, and turn our attention to the things signified by them; and so much so, that most of them, and those the most frequent and familiar, have no name in any language. In perception, memory, judgment, imagination, and reasoning, there is an object distinct from the operation itself; and, while we are led by a strong impulse, to attend to the object, the operation itself escapes our notice. Our passions, affections, and all our active powers, have, in like manner, their objects, which engross our attention, and divert it from the passion itself.

4. To this we may add a just observation made by Mr. Hume, that, when the mind is agitated by any passion, as soon as we turn our attention from the object to the passion itself, *the passion subsides or vanishes*, and by that means escapes our inquiry. This, indeed, is common to almost every operation of the mind; for when it is exerted, we are conscious of it; but then we do not attend to the operation, but only to its object. When the mind is drawn off from the object to attend to its own operation, that operation ceases, and escapes our notice.

5. As it is not sufficient to the discovery of mathematical truths, that a man be able to attend to mathematical figures; as it is necessary that he should have the ability to distinguish accurately things, that differ, and to discern clearly the

various relations of the quantities he compares—an ability which, though much greater in those who have the force of genius than in others, yet even in them it requires exercise and habit to bring it to maturity—so, in order to *discover the truth in what relates to the operations of the mind*, it is not enough that a man be able to give attention to them; he must have the ability (1) to distinguish accurately their minute differences; (2) to resolve and analyse complex operations into their simple ingredients; (3) to unfold the ambiguity of words, which in this science is greater than in any other, and to give them the same accuracy and precision that mathematical terms have. For, indeed, the same precision in the use of words; the same cool attention to the minute differences of things; the same talent for abstraction and analysing, which fits a man for the study of mathematics, is no less necessary in this. But there is this great difference between the two sciences, that the objects of mathematics being things *external* to the mind, it is much more easy to attend to them, and fix them steadily in the imagination.¹

II. *Pneumatology hitherto insufficiently cultivated*.—The difficulty attending our inquiries into the powers of the mind, serves to account for some events respecting this branch of philosophy, which deserve to be mentioned.

While most branches of science have, either in ancient or in modern times, been highly cultivated and brought to a

¹ The difficulties that present themselves in attending to the operations of our minds arise from—(1) The number and quick succession of the operations themselves. (2) Our acting contrary to habit in attending to them. (3) Their natural tendency. (4) The evanescent character of the passions. (5) The difficulty of distinguishing accurately things that differ but little.

considerable degree of perfection, this remains, to this day, in a very low state, and as it were in its infancy.

III. *Criterion of the maturity of a science.*—Every science invented by men must have its beginning and its progress ; and, from various causes, it may happen that one science shall be brought to a great degree of maturity, while another is yet in its infancy. The maturity of a science may be judged of by this fact, when it contains a system of principles, and conclusions drawn from them, which are so firmly established, that, among thinking and intelligent men, there remains no doubt or dispute about them ; so that those, who come after may raise the superstructure higher, but shall never be able *to overturn what has been already built*. in order to begin on a new foundation.

IV. *Rise and progress of mathematics.*—Geometry seems to have been in its infancy about the time of Thales and Pythagoras ; because many of the elementary propositions, on which the whole science is built, are ascribed to them as the inventors. Euclid's Elements, which were written some ages after Pythagoras, exhibit a system of geometry, which deserves the name of a science ; and although great additions have been made by Appollonius, Archimedes, Pappus, and others among the ancients, and still greater additions by the moderns, yet what was laid down in Euclid's Elements has never been set aside. It remains as the firm foundation of all future superstructures in that science.

Natural philosophy remained in its infant state for nearly two thousand years after geometry had attained its manly form : for it does not seem to have been built on a stable foundation, nor carried to any degree of maturity, till

the last century. The system of Des Cartes, which was all hypothesis, prevailed in the most enlightened part of Europe till towards the end of last century. Sir Isaac Newton has the merit of giving the form of a science to this branch of philosophy ; and it needs not appear surprising, if the philosophy of the human mind should be a century or two later in being brought to maturity.

It has received great accessions from the labours of several modern authors ; and, perhaps, it wants but little more to entitle it to the name of a science, than to be purged of certain hypotheses, which have deceived or deluded some of the most acute writers on this subject, and led them into downright scepticism.

V. *A false analogy impeded the study of pneumatology.*—What the ancients have delivered to us concerning the mind, and its operations, is almost entirely drawn, not from accurate reflection, but from some *conceived analogy between body and mind*. And although the modern authors I formerly named have given more attention to the operations of their own minds, and by that means have made important discoveries ; yet, by retaining some of the ancient analogical notions, their discoveries have been less useful than they might have been, and have led to scepticism.

VI. It may happen in science, as in *building*, that an error in the foundation will weaken the whole structure ; and the farther the building is carried on, this weakness will become the more apparent and the more threatening. Something of this kind seems to have happened in our systems concerning the mind. The accession they have received by modern discoveries, though very important in itself, has

thrown darkness and obscurity upon the whole, and has led men rather to scepticism than to knowledge. This must be owing to some fundamental errors, that have not been observed; and when these are corrected, it is to be hoped, that the improvements, that have been made, will have their due effect.

The last effect that I observe of the difficulty attending inquiries into the powers of the mind, is, that there is no other part of human knowledge, in which ingenious authors have been so apt to run into strange paradoxes, and even into gross absurdities.

VII. *Some advantages derived from the paradoxes of philosophers.*—When we find philosophers maintaining, that there is no heat in the fire, nor colour in the rainbow;¹ when

¹ Hamilton says that this was merely a verbal dispute or logomachy, and that Des Cartes and Locke made no such inference, that sound, taste, smell, colour, heat, and cold, which the unlearned took to be qualities of bodies, were not qualities of bodies, but merely sensations of the mind. They only maintained that sound, taste, etc., as sensations in us, have no resemblance to any quality in bodies. If the names, therefore, of sound, taste, etc., were to be employed univocally—that is, to denote always things the same or similar—in that case they argued that these terms, if properly significant of the sensations, could not be properly applied to the relative qualities in external things. This is distinctly stated both by Des Cartes and Locke. But Des Cartes and the Cartesians observe that the terms in question are equivocally used; being commonly applied both to that in things, which occasions the sensation in us, and to that sensation itself. Nay, the Cartesians, to avoid the ambiguity of words, distinguished the two relations by different names. Let us take, for example, colour. They called colour, as a sensation in the mind, formal colour; but colour as a quality in bodies capable of producing the sensation, *primitive* or *radical* colour. They had likewise another distinction of less importance—that of *secondary* or *derivative* colour; meaning thereby that, which the coloured bodies impress upon the external medium. Thus, again, primitive or radical sound was the property of a body to determine a certain agitation in the air or other medium; secondary or derivative sound, that agitation in the medium itself; formal sound, the sensation occasioned by the im-

we find the gravest philosophers, from Des Cartes down to Bishop Berkeley, mustering up arguments to prove the existence of a material world, and unable to find any that will bear examination : when we find Bishop Berkeley and Mr. Hume, the acutest metaphysicians of the age, maintaining, that there is no such thing as matter in the universe : that sun, moon and stars, the earth, which we inhabit, our own bodies, and those of our friends, are only ideas in our minds, and have no existence but in thought : when we find the last maintaining, that there is neither body nor mind ; that there is nothing in nature but *ideas and impressions, without any substance on which they are impressed* : that there is no certainty, nor, indeed, any, probability, even in mathematical axioms : I say, when we consider such extravagances of many of the most acute writers on this subject, we may be apt to think the whole to be only a dream of fanciful men, who have entangled themselves in cobwebs spun out of their own brain. But we ought to consider, that the more closely and ingeniously men reason from false principles, the more will be the absurdities into which they will be led ; and when such absurdities help to bring to light the false principles from which they are drawn, these men may the more easily be forgiven.

pression made by the radical sound mediately, and by the derivative immediately upon the organ of hearing. There is thus, concludes Hamilton, no difference between Reid and the Cartesians, except that the doctrine which he censures is in fact more precise and explicit than his own. Vide Chap. I. sect. xxxvi. and xxxvii.

QUESTIONS FOR SELF-EXAMINATION.

Causes of the difficulties which arise in considering the operations of the understanding?

How may we judge of the maturity of any science?

Another source of error amongst ancient pneumatologists?

Advantages attending the paradoxes of the philosophers?

How did the Cartesians distinguish colour and sound, as sensations in our mind, from these qualities in bodies?

CHAPTER VII.

DIVISION OF THE POWERS OF THE MIND.

I. *Understanding and Will.*¹—The powers of the mind are so many, so various, and so connected and complicated in most of its operations, that there never has been any division of them proposed, which is not liable to considerable objections. We shall therefore take that general division of them, which is the most common, into the powers of Understanding and into those of Will. Under the Will we comprehend our active powers, and all, that lead to action, or influence the mind to act; such as appetites, passions, and affections. The Understanding comprehends our contemplative powers, by which we perceive objects; by which we conceive or remember them; by which we analyse or compound them; and by which we judge and reason concerning them.

1 It is sufficient, says Hamilton, to say that this vulgar division of the faculties, adopted by Reid, into those of the Understanding and those of the Will, is to be traced to the classification taken in the Aristotelic school, of the powers into gnostic, or cognitive, and orectic, or appetent.

II.—*The prevailing division not strictly logical.*—Although this general division may be of use in order to our proceeding more methodically in our subject, we are not to understand it, as if, in those operations, which are ascribed to the Understanding, there was no exertion of will or activity, or as if the Understanding was not employed in the operations ascribed to the Will; for I conceive there is no operation of the Understanding wherein the mind is not active in some degree. We have some command over our thoughts,¹ and we can attend to this or that thing, of the many objects which present themselves to our senses, to our memory, or to our imagination. We can survey an object on this side or that, superficially or accurately, for a longer or a shorter time; so that our contemplative powers are under the guidance and direction of the active; and the former never pursue their object without being led and directed, urged or restrained, by the latter: and because the Understanding is always more or less directed by the Will, mankind have ascribed some degree of activity to the mind in its intellectual operations, as well as to those, which belong to the Will, and have expressed them by active verbs, such as seeing, hearing, judging, reasoning, and the like.

And as the mind exerts some degree of activity even in the operations of understanding, so it is certain that there can be no act of the Will, which is not accompanied with some act of the Understanding. The Will must have an object, and that object must be apprehended or conceived in

¹ There are two things in every man's power in this case, according to Locke,—1st. To mind and observe what the ideas are that take their turn in his understanding; or else, 2ndly, To direct the sort, and call in such as he hath a desire or use of.—*Essay*, book II. chap. xiv. sect. 15.

the Understanding. It is therefore to be remembered, that in most, if not of all the operations of the mind, both faculties concur; and we range the operation under that faculty, which hath the largest share in it.¹

III. *Ancient divisions of the operations of the intellect defective.*—The intellectual powers are commonly divided into simple apprehension, judgment, and reasoning.² As this division has, in its favour, the authority of antiquity, and of a general reception, it would be improper to set it aside without giving any reason for such; I shall, therefore, explain it briefly, and give the reasons why I follow another.

IV. *These three operations are not independent, nor do they include consciousness, perception, memory, &c.* It may be observed, that, without apprehension of the objects, concerning which we judge, there can be no judgment; and as little can there be reasoning without both apprehension and judgment: (1)³ these three operations, therefore, are not in-

1 It should always be remembered, says Hamilton, that the various mental energies are all only possible in and through each other; and that our psychological analyses do not suppose any real distinction of the operations which were discriminate by different names. Thought and volition can no more be exerted apart than the sides and angles of a square can exist separately from each other.

2 Hamilton observes that this is a singular misapprehension; for the division in question was never proposed by any philosopher as a psychological division of the cognitive faculties in general; on the contrary, it is only a logical distribution of that section of the cognitive faculties which we denominate discursive, as those alone which are proximately concerned in the process of reasoning—or thought, in its strictest signification.

3 Vide sect. vi. and vii. p. 116-118, seq.

4 Hamilton also observes that this dictum of Reid's is not correct; for that apprehension is as impossible without judgment, as judgment is impossible without apprehension. The notion or apprehension of a thing is only realised in the mental affirmation that the concept ideally exists, and this affirmation is a judgment. In fact, all consciousness supposes a judgment, as all consciousness supposes a discrimination.

dependent of each other. The second includes the first, and the third includes both the first and second : but the first may be exercised without either of the other two.⁴ It is on that account called simple apprehension, that is, apprehension unaccompanied with any judgment about the object apprehended. This simple apprehension of an object is, in common language, called having a notion, or having a conception of the object, and by late authors it is called having an idea of it. In speaking, it is expressed by a word, or by a part of a proposition, without that composition and structure, which makes a complete sentence ; as a man, a man of fortune. Such words, taken by themselves, signify simple apprehensions. They neither affirm nor deny ; they imply no judgment or opinion of the thing signified by them, and therefore cannot be said to be either true or false.

The second operation in this division is judgment ; in which, say the philosophers, there must be two objects of thought compared ; and some agreement, or disagreement, or, in general, some relation discerned between them ; in consequence of which, there is an opinion or belief of that relation, which we discern. This operation is expressed in speech by a proposition, in which some relation between the things compared is affirmed or denied ; as when we say, All men are fallible.

Truth and falsehood are qualities, which belong to judgment only ; or to propositions by which judgment is expressed. Every judgment, every opinion, and every proposition, is either true or false. But words, which neither affirm or deny anything, can have neither of those qualities ; and the same may be said of simple apprehensions, which are signified by such words.

The third operation is reasoning ; in which, from two or more judgments, we draw a conclusion

V. *Origin of this incomplete division.*—This division of our intellectual powers corresponds perfectly with the account commonly given by philosophers, of the successive steps by which the mind proceeds in the acquisition of its knowledge, and which are these three : *First*, by the senses or by other means, it is furnished by various simple apprehensions, notions, or ideas. These are the materials which Nature gives it to work upon ; and from the simple ideas it is furnished with by Nature, it forms various others more complex. *Secondly*, by comparing its ideas, and by perceiving their agreements and disagreements, it forms its judgments. And, *lastly*, from two or more judgments, it deduces conclusions of reasoning.

Now, if all our knowledge is got by a procedure of this kind, certainly the threefold division of the powers of understanding, into simple apprehension, judgment, and reasoning, is the most natural and the most proper, that can be devised. This theory and that division are so closely connected, that it is difficult to judge which of them has given rise to the other ; and they must stand or fall together. But if all our knowledge is not got by a process of this kind ; if there are other avenues of knowledge besides the comparing of our ideas, and the perceiving of their agreements and disagreements, it is probable that there may be operations of the Understanding, which cannot be properly reduced under any of the three, that have been explained.

VI.—*Consciousness not comprehended in this division.*—Let us consider some of the most familiar operations of our

minds, and see to which of the three they belong. I begin with (2) *consciousness*. I know that I think, and this is, of all knowledge, the most certain. Is that operation of my mind, which gives me this certain knowledge, to be called *simple apprehension*? No, surely. Simple apprehension neither affirms nor denies. It will not be said that it is by reasoning, that I know that I think. It remains, therefore, that it must be by judgment, that is according to the account given of judgment, by comparing two ideas, and perceiving the agreement between them. But what are the ideas compared? They must be the idea of myself, and the idea of thought, for they are the terms of the proposition, I think. According to this account then, first, I have the idea of myself, and the idea of thought; then, by comparing these two ideas, I perceive that I think.

Let any man, who is capable of reflection judge for himself, whether it is by an operation of this kind that he comes to be convinced that he thinks? To me it appears evident that the conviction which I have that I think, is not got in this way, and therefore I conclude, either that consciousness is not judgment, or that judgment is not rightly defined to be the perception of some agreement or disagreement between two ideas.

VII. *Nor perception*.—The (3) *perception* of an object by my senses is another operation of the Understanding. I would know whether it be simple apprehension, or judgment, or reasoning. It is not simple apprehension, because I am persuaded of the existence of the object as much as I could be by demonstration. It is not judgment, if by judgment be meant the comparing of ideas, and the perceiving of

their agreements or disagreements. It is not reasoning, because those, who cannot reason, can yet perceive.

VIII. *Nor memory.*—I find the same difficulty in classing (4) memory under any of the operations mentioned.

IX. *Incomplete divisions impede the progress of metaphysical inquiry.*—There is not a more fruitful source of error in this branch of philosophy, than divisions of things, which are taken to be complete, when they really are not so. To make a perfect division of any class of things, a man ought to have the whole under his view at once. But the greatest capacity very often is not sufficient for this. Something is left out which did not come under the philosopher's view, when he made his division ; and to suit this to the division, it must be made what nature never made it. This has been so common a fault with philosophers, that one, who would avoid error, ought to be suspicious of divisions, though long received, and of great authority, especially when they are grounded on a theory, that may be called in question. In a subject imperfectly known, we ought not to pretend to perfect divisions, but to leave room for such additions or alterations, as a more perfect view of the subject may afterwards suggest.

X. *First division of the powers of the mind.*—I shall not, therefore, attempt a complete enumeration of the powers of the human Understanding. I shall only mention those, which I propose to explain, and they are the following :

First, The powers we have by means of our external senses. *Secondly*, Memory. *Thirdly*, Conception. *Fourthly*, The powers of resolving and analysing complex objects, and compounding those that are more simple. *Fifthly*, Judging.

Sixthly, Reasoning. *Seventhly*, Taste. *Eighthly*, Moral Perception. And, *last* of all, Consciousness.

QUESTIONS FOR SELF-EXAMINATION.

The vulgar division of the powers of the mind ?

It is not strictly logical ?

Defect of the most ancient division of the mental powers ?

Why are divisions professing to be perfect generally inadequate ?

Faculties enumerated by Reid ?

What restriction does Hamilton make on the division of the intellectual into simple apprehension, judgment, and reasoning ?

What stricture does he make on Reid's dictum regarding simple apprehension ?

CHAPTER VIII.

I. *Second¹ division of the powers of the mind*—THERE is another division of the powers of the mind which, though it has been, ought not to be, overlooked by writers on this subject, because it has a real foundation in Nature. Some operations of our minds, from their very nature, are social, whilst others are solitary.

II. *All the operations of the mind not to be ascribed to the Understanding or Will solely*.—By the first, I understand such operations as necessarily suppose an intercourse with some other intelligent being. A man may understand and will ; he may apprehend, judge, and reason, though he should not know of any intelligent being in the universe besides himself. But when he asks information, or receives it ; when he bears testimony, or receives the testimony of another ; when he asks a favour, or accepts one ; when he

¹ Vide sect. x. chap. vii. p. 118.

gives a command to his servant, or receives one from a superior ; when he plights his faith in a promise or contract ; these are acts of social intercourse between intelligent beings, and can have no place when living in solitude. They suppose Understanding and Will ; but they suppose something more, which is neither Understanding nor Will, and that is society with other intelligent beings. They may be called intellectual, because they can only be in intellectual beings : but they are neither simple apprehension, nor judgment, nor reasoning, nor are they any combination of these operations.

To ask a question, is as simple an operation as to judge or to reason ; yet it is neither judgment, nor reasoning, nor simple apprehension, nor is it any composition of these. Testimony is neither simple apprehension, nor judgment, nor reasoning. The same may be said of a promise, or of a contract. These acts of mind are perfectly understood by every man of common understanding ; but, when philosophers attempt to bring them within the pale of their divisions, by analysing them, they find inexplicable mysteries, and even contradictions, in them. One may see an instance of this, of the many that might be mentioned, in Mr. Hume's " Inquiry concerning the Principles of Morals," sect. 3, part 2, note, near the end.

III. *The attempt to reduce social to solitary operations, is analogous to a reduction erroneously made in ethics.*—The attempts of philosophers to reduce the social operations under the common philosophical divisions, resemble very much the attempts of some philosophers to reduce all our social affections to certain modifications of self-love. The Author of our being intended us to be social beings, and has,

for that end, given us social intellectual powers, as well as social affections.¹ Both are original parts of our constitution, and the exertions of both of these are no less natural than the exertions of those powers, that are solitary and selfish.

Our social intellectual operations, as well as our social affections, appear very early in life, before we are capable of reasoning ; yet both suppose a conviction of the existence of other intelligent beings. When a child asks a question of his nurse, the act of his mind supposes not only a desire to know what he asks ; it supposes likewise a conviction that the nurse is an intelligent being, to whom he can communicate his thoughts, and who can communicate her thoughts to him. How he came by this conviction so early is a question of some importance in the knowledge of the human mind, and therefore worthy of the consideration of philosophers. But they seem to have given no attention either to this early conviction, or those operations of the mind, which suppose it. Of this we shall have occasion to treat afterwards.

IV. *Primary intention of language.*—All languages are fitted to express the social as well as the solitary operations of the mind. It may indeed be affirmed, that, to express the former, is the primary and direct intention of language. A man, who had no intercourse with any other intelligent

1 "Man," says Aristotle, "is, by nature, more political than any ant or bee." This I do not believe ; at least the same harmony does not exist among them, as it does among these insects. And Aristotle also says in another work *Ἀνθρώπων ἡδυστον* *ἄνθρωπος*. "Man is the dearest thing to man." This also has exceptions to the rule, for a higher Authority than Aristotle hath said : "A man's enemies are those of his own household."

being would never think of language. He would be as mute as the beasts of the field ; even more so, because they have some degree of social intercourse with one another, and some of them with man. When language is once learned, it may be useful even in our solitary meditations ; and, by clothing our thoughts with words, we may have a firmer hold of them. But this was not its first intention ; and the structure of every language shows that it is not intended solely for this purpose.

In every language, a prayer or wish, a question, a command, a promise, which are social acts, can be expressed as easily and as properly as judgment, which is a solitary act. The expression of the last has been honoured with a particular name ; it is called a proposition ; it has been an object of great attention to philosophers ; it has been analysed into its very elements, of subject, predicate, and copula. All the various modifications of these, and of propositions which are compounded of them, have been anxiously examined in many voluminous tracts. The expression of a question, of a command, or of a promise, is as capable of being analysed as a proposition is ; but we do not find that this has been attempted , and we have not so much as given them a name different from the operations which they express.¹

Why have speculative men laboured so anxiously to analyse our solitary operations, and given so little attention to the social ? I know of no other reason than this, because in the divisions that have been made of the mind's operations, the social have been omitted, and thereby thrown behind the curtain.

¹ The author treats more fully of this class of "Enunciations" in his "Analysis of Aristotle's Logic, chap. i. sect. 4, and chap ii. sect. 6.

V. *What words best adapted to the expression of the social operations of the mind.*—In all languages the second person of verbs, the pronoun of the second person, and the vocative case in nouns, are appropriated to the expression of social operations of mind, and could never have had place in language but for this purpose ; nor is it a good argument against this observation, that by a rhetorical figure, we sometimes address persons that are absent, or even inanimate beings, in the second person. For it ought to be remembered, that all figurative ways of using words or phrases, suppose a natural and literal meaning of them.¹

¹ Hamilton very justly observes that what throughout this chapter is implied, ought to be explicitly stated, namely, that language is natural to man : and consequently, the faculty of speech ought to be enumerated among the mental powers.

QUESTIONS FOR SELF-EXAMINATION.

Second division of the operations of the mind ?

All the intellectual operations should not be ascribed to the Understanding or Will ?

To what error in ethics is the reduction of social to solitary operations similar ?

The primary intention of language ?

What words are best adapted to express those operations ?

What other faculty should have been mentioned among the mental powers by Reid ?



